

258/45

2008 3:00 PM  
 RE: 10/565,331  
**Subject:** RE: 10/565,331

Please search formula in claims 12 and 13 against commercial and interference databases.

Thanks,

Karen  
 Art. Unit 1644  
 Office REG. 2489  
 Mail REG. 3C73  
 Tel (571) 272-0846

**Searcher:** \_\_\_\_\_  
**Searcher's Phone:** \_\_\_\_\_  
**Date Message dictated by:** \_\_\_\_\_  
**Date dictated:** \_\_\_\_\_  
**Received from whom:** \_\_\_\_\_  
**Outline Type:** \_\_\_\_\_

**Type of Search:**  
 P.R. \_\_\_\_\_ XAM \_\_\_\_\_  
 C/L \_\_\_\_\_ Migrat. \_\_\_\_\_  
 Recd. \_\_\_\_\_ Recd. \_\_\_\_\_  
 Structure, P. \_\_\_\_\_  
 Describ. L. \_\_\_\_\_ Date of Recd. \_\_\_\_\_

**Vendor/First where applied to:**  
 P. \_\_\_\_\_ S. \_\_\_\_\_  
 GENERAL ELECTRIC \_\_\_\_\_  
 BELL & HOWELL \_\_\_\_\_  
 GTE INFORMATION \_\_\_\_\_  
 XEROX CORPORATION \_\_\_\_\_  
 OTHER (Specify): \_\_\_\_\_

=> d que 11  
L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-565331/APPS

=> d ibib ed abs ind 11  
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:121065 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:204915  
TITLE: Antibody-toxin conjugates  
INVENTOR(S): Defrees, Shawn; Wang, Zhi-Guang  
PATENT ASSIGNEE(S): Neose Technologies, Inc., USA  
SOURCE: PCT Int. Appl., 126 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012484	A2	20050210	WO 2004-US24042	20040726
WO 2005012484	A3	20070524		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA				
US 20070059275	A1	20070315	US 2006-565331	20060911 <--
PRIORITY APPLN. INFO.:			US 2003-490168P	P 20030725
			US 2003-499448P	P 20030902
			WO 2004-US24042	W 20040726

ED Entered STN: 11 Feb 2005  
AB In response to the need for improved site-specific delivery of toxins to the loci of disease, the present invention provides antibodies that are modified with toxins. The invention provides a unique class of conjugates in which the toxin is attached to the antibody through a glycosyl linking group, e.g., an intact glycosyl linking group, which is attached to the peptide (or to an acceptor moiety attached to the peptide, e.g. a spacer or amplifier) utilizing an enzymically-mediated coupling reaction. Thus, in a first aspect, the present invention provides a peptide conjugate in which the sugar-toxin construct (modified sugar) is attached to a peptide. For example, the invention provides a peptide conjugate having the formula: Ab-G-L-T wherein Ab is an antibody, or other targeting moiety; G is a glycosyl linking group, e.g., an intact glycosyl linking group, covalently joining Ab to L; L is a bond or a spacer moiety covalently joining G to T; and T is a toxin, or other therapeutic agent. In a second aspect, the invention provides a compound having the formula: S-L-T wherein S is a nucleotide sugar; L is a bond or a spacer moiety covalently joining S to T; and T is a toxin moiety.

IC ICM C12N  
 CC 63-8 (Pharmaceuticals)  
 Section cross-reference(s): 15  
 ST antibody toxin sugar conjugate drug delivery system cancer  
 IT Antibodies and Immunoglobulins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates with toxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (cytotoxins; conjugates with sugars and antibodies; therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT Drug delivery systems  
 (immunotoxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT Carbohydrates, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nucleotide sugar-toxin conjugates; therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT Antitumor agents  
 Neoplasm  
 (therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT Polyoxalkylenes, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (therapeutic antibody-toxin conjugates involving a glycosyl linking group)  
 IT 25322-68-3, PEG  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (linker; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

=> d que 13  
 L2 2 SEA FILE=WPIX ABB=ON PLU=ON US2006-565331/APPS  
 L3 1 SEA FILE=WPIX ABB=ON PLU=ON L2 NOT PRINTER/TI

=> d iall code 13  
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L3 ANSWER 1 OF 1 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-152442 [16] WPIX  
 DOC. NO. CPI: C2005-049422 [16]  
 TITLE: New peptide conjugates formed between toxins and sugars or sugar nucleotides or between these species and a peptide useful for treating and diagnosing inflammation and tumor metastasis  
 DERWENT CLASS: A96; B04; D16  
 INVENTOR: DEFREES S; WANG Z  
 PATENT ASSIGNEE: (NEOS-N) NEOSE TECHNOLOGIES INC; (DEFR-I) DEFREES S; (WANG-I) WANG Z  
 COUNTRY COUNT: 106

## PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
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WO 2005012484 A2 20050210 (200516)\* EN 126[0]  
 US 20070059275 A1 20070315 (200722) EN

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005012484 A2		WO 2004-US24042	20040726
US 20070059275 A1	Provisional	US 2003-490168P	20030725
US 20070059275 A1	Provisional	US 2003-499448P	20030902
US 20070059275 A1		WO 2004-US24042	20040726
US 20070059275 A1		US 2006-565331	<u>20060911</u>

PRIORITY APPLN. INFO: US 2003-499448P 20030902  
 US 2003-490168P 20030725  
US 2006-565331 20060911

## INT. PATENT CLASSIF.:

IPC ORIGINAL: A61K0039-395 [I,A]; A61K0039-395 [I,C]; C07K0016-46 [I,A];  
 ; C07K0016-46 [I,C]; C08G0063-00 [I,C]; C08G0063-91 [I,A];  
 ; C08L0089-00 [I,A]; C08L0089-00 [I,C]

## IPC RECLASSIF.:

C12N [I,S]

USCLASS NCLM: 424/078.270

NCLS: 424/178.100; 525/054.100; 530/391.100; 977/906.000

## BASIC ABSTRACT:

WO 2005012484 A2 UPAB: 20050708

NOVELTY - Peptide conjugates formed between toxins and sugars or sugar nucleotides or between these species and a peptide are new.

DETAILED DESCRIPTION - Peptide conjugates formed between toxins and sugars or sugar nucleotides or between these species and a peptide which have compounds of formula Ab-G-L-T (I) or S-Ll-Tl (II), are new.

Ab = antibody;

G = intact glycosyl linking group covalently joining Ab to L;

L,Ll = bond or a spacer group covalently joining G to T;

T = toxin;

S = nucleotide sugar; and

Tl = toxin group.

ACTIVITY - Antiinflammatory; Cytostatic; Neuroprotective.

No biological data given.

MECHANISM OF ACTION - None given.

USE - The peptide conjugates are useful for treating and diagnosing inflammation, neurological disorders and tumor metastasis; and as drug delivery systems.

ADVANTAGE - The conjugates show minimum side effects and are highly efficacious.

MANUAL CODE: CPI: A10-E01; A12-V01; A12-V03C2; B04-C01H; B04-C03C;  
 B04-G01; B11-C08; B12-K04A; B14-C03; B14-H01B; B14-J01;  
 D05-H11

AN 2005-152442 [16] WPIX

DC A96; B04; D16

IPCI A61K0039-395 [I,A]; A61K0039-395 [I,C]; C07K0016-46 [I,A]; C07K0016-46 [I,C]; C08G0063-00 [I,C]; C08G0063-91 [I,A]; C08L0089-00 [I,A];  
 C08L0089-00 [I,C]

IPC R C12N [I,S]

NCLM 424/078.270

NCLS 424/178.100; 525/054.100; 530/391.100; 977/906.000

IT UPIT 20050708

184587-CL; 0150-32801-CL; 0150-32802-CL

MC CPI: A10-E01; A12-V01; A12-V03C2; B04-C01H; B04-C03C; B04-G01; B11-C08;  
 B12-K04A; B14-C03; B14-H01B; B14-J01; D05-H11

PLE UPA 20050708  
 [1.1] 2004 G1558 D01 D23 D22 D31 D42 D50 D73 D82 F47 DCN: R00351 DCR:  
 444; H0237-R; P0055; P8004 P0975 P0964 D01 D10 D11 D50 D82 F34;  
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 M2040; M9999 M2835; M9999 M2824;  
 [1.2] 2004 ND01; Q9999 Q8037 Q7987; Q9999 Q7998 Q7987; Q9999 Q7250;  
 [1.3] 2004 S- 6A; H0157;  
 CMC UPB 20050708  
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 DCR: 184587-K 184587-M 184587-Q 184587-T  
 M1 \*03\* C116 F012 F013 F014 F015 F016 F017 F123 H102 H121 H122 H123 H181  
 H182 H5 H582 H583 H584 H8 J011 J012 J013 J014 J221 J222 J271  
 J290 J311 J312 J321 J322 J371 J372 J373 J390 J581 K0 K224 K423  
 K433 K499 K620 K640 K699 K810 K830 K850 K899 K910 K930 K999 L410  
 L450 L463 L471 L472 L499 L531 L532 L541 L543 L560 L599 L640 L699  
 L8 L814 L821 L831 M280 M311 M312 M313 M314 M315 M316 M321 M322  
 M323 M331 M332 M333 M340 M342 M349 M361 M373 M381 M382 M383 M391  
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 M1 \*04\* F012 F013 F014 F015 F113 H102 H121 H181 H182 H4 H403 H404 H422  
 H481 H482 H521 H581 H582 H592 H8 J011 J012 J013 J014 J211 J221  
 J290 J311 J321 J371 J372 J390 J581 K0 K224 K620 K640 K699 L410  
 L463 L499 L531 L532 L541 L543 L560 L640 L699 L8 L813 L821 L831  
 M280 M311 M312 M313 M314 M315 M316 M321 M322 M323 M331 M332 M333  
 M340 M342 M349 M361 M373 M381 M382 M383 M391 M392 M393 M413 M423  
 M430 M510 M521 M530 M540 M782 M800 P420 P446 P631 P831 Q233  
 M905 M904  
 MCN: 0150-32802-K 0150-32802-M 0150-32802-Q 0150-32802-T  
 M6 \*01\* P420 P446 P631 P831 Q233 Q505 R515 R521 R621 R627 M905

=> => d que 14  
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN

=> d ide 14  
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN  
RN 25322-68-3 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)  
OTHER NAMES:  
CN  $\alpha$ , $\omega$ -Hydroxypoly(ethylene oxide)  
CN  $\alpha$ -Hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl)  
CN  $\alpha$ -Hydro- $\omega$ -hydroxypoly(oxyethylene)  
CN 1,2-Ethanediol, homopolymer  
CN 16600  
CN 1660S  
CN 400DAB8  
CN Alkox  
CN Alkox E 100  
CN Alkox E 130  
CN Alkox E 160  
CN Alkox E 240  
CN Alkox E 30  
CN Alkox E 300  
CN Alkox E 30G  
CN Alkox E 45  
CN Alkox E 60  
CN Alkox E 75  
CN Alkox LE  
CN Alkox R 100  
CN Alkox R 1000  
CN Alkox R 15  
CN Alkox R 150  
CN Alkox R 400  
CN Alkox SR  
CN Alkox SW  
CN Antarox E 4000  
CN Aqua Calk TWB-P  
CN Aquacide III  
CN Aquaffin  
CN Badimol  
CN BDH 301  
CN BP 05  
CN Bradsyn PEG  
CN Breox 2000  
CN Breox 20M  
CN Breox 4000  
CN Breox 550  
CN Breox PEG 300  
CN CAFO 154  
CN Carbowax  
CN Carbowax 100  
CN Carbowax 1000

CN Carbowax 1350  
 CN Carbowax 14000  
 CN Carbowax 1450  
 CN Carbowax 1500  
 CN Carbowax 1540  
 CN Carbowax 20  
 CN Carbowax 200

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

AR 6790-09-6, 9002-90-8, 934660-23-8  
 DR 857367-46-5, 859315-72-3, 863328-36-3, 886469-28-9, 952682-62-1,  
 956217-69-9, 959127-49-2, 615575-04-7, 876655-84-4, 1011711-38-8,  
 497171-83-2, 12676-74-3, 12770-93-3, 8038-37-7, 9081-95-2, 9085-02-3,  
 9085-03-4, 174460-08-3, 174460-09-4, 54510-95-1, 125223-68-9, 54847-64-2,  
 59763-40-5, 64441-68-5, 64640-28-4, 133573-31-6, 25104-58-9, 25609-81-8,  
 134919-43-0, 101677-86-5, 99264-61-6, 99333-89-8, 106186-24-7,  
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 34802-42-1, 107502-63-6, 107529-96-4, 116549-90-7, 156948-19-5,  
 169046-53-1, 188364-77-4, 188924-03-0, 189154-62-9, 191743-71-2,  
 196696-84-1, 201163-43-1, 206357-86-0, 221638-71-7, 225502-44-3,  
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MF (C<sub>2</sub>H<sub>4</sub>O)n H<sub>2</sub>O

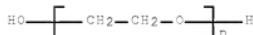
CI PMS, COM

PCT Polyether

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA,  
 CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST,  
 CHEMSAFE, CIN, CSChem, CSNB, DDFU, DETHERM\*, DRUGU, EMBASE, ENCOMPLIT,  
 ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA,  
 MEDLINE, MRCK\*, MSDS-OHS, PIRA, PROMI, RTECS\*, SPECINFO, TOXCENTER,  
 TULSA, ULIDAT, USAN, USPAT2, USPATFULL, USPATOLD, VETU  
 (\*File contains numerically searchable property data)

Other Sources: DSL\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



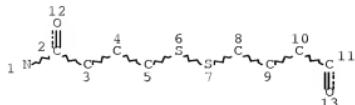
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

105981 REFERENCES IN FILE CA (1907 TO DATE)

26713 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

106285 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d que stat 135  
L33 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE  
L35 120 SEA FILE=REGISTRY SSS FUL L33

100.0% PROCESSED 2150 ITERATIONS 120 ANSWERS  
SEARCH TIME: 00.00.01

=> d que nos 153  
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L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN  
L5 QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25  
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L6 QUE ABB=ON PLU=ON DEFREES, S?/AU  
L7 QUE ABB=ON PLU=ON DE FREES, S?/AU  
L8 QUE ABB=ON PLU=ON WANG, Z?/AU  
L9 QUE ABB=ON PLU=ON NEOSE/CS,SO,PA  
L10 QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
<2004 OR REVIEW/DT  
L11 QUE ABB=ON PLU=ON AB  
L12 QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES  
))  
L13 QUE ABB=ON PLU=ON TOXIN  
L14 QUE ABB=ON PLU=ON ?GLYCOSYL?  
L15 QUE ABB=ON PLU=ON AMPLIF?  
L16 QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
L17 QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
L18 QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
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?)  
L19 QUE ABB=ON PLU=ON PEG  
L20 QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?  
OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?  
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ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
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L23           QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPT  
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PTID? OR HEXAPEPTID?  
L24           QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC  
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L26           QUE ABB=ON PLU=ON TOXINS+PFT,OLD,NEW,NT/CT  
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L39           1800 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 OR L38  
L40           106288 SEA FILE=HCAPLUS ABB=ON PLU=ON L4  
L41           48 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L40 OR L5 OR (L19 OR  
L20 OR L21 OR L22))  
L42           67 SEA FILE=HCAPLUS ABB=ON PLU=ON L35  
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OR (L29 OR L30 OR L31 OR L32))  
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L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR  
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L49           1 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 AND (L6 OR L7 OR L8 OR  
L9)  
L50           1 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND L49  
L51           1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L49 OR L50)  
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L53           35 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND L10

=> d his 168

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 09:18:02 ON 30 APR 2008)  
L68           11 S L65 AND L67

=> d que nos 168

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L7           QUE ABB=ON PLU=ON DE FREES, S?/AU  
L8           QUE ABB=ON PLU=ON WANG, Z?/AU  
L9           QUE ABB=ON PLU=ON NEOSE/CS, SO, PA  
L10           QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
<2004 OR REVIEW/DT  
L11           QUE ABB=ON PLU=ON AB

L12           QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES ))  
 L13           QUE ABB=ON PLU=ON TOXIN  
 L14           QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L16           QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17           QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
               OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L24           QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC  
               HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR  
               PENTOS?  
 L29           QUE ABB=ON PLU=ON A61K0039-395/IPC  
 L30           QUE ABB=ON PLU=ON A61K0039-44/IPC  
 L31           QUE ABB=ON PLU=ON C07K0016-46/IPC  
 L32           QUE ABB=ON PLU=ON C07K0017-08/IPC  
 L33           STR  
 L35           120 SEA FILE=REGISTRY SSS FUL L33  
 L54           19 SEA L35  
 L55           29534 SEA L4  
 L56           549 SEA (L54 OR L55) AND (L29 OR L30 OR L31 OR L32)  
 L57           0 SEA L56 AND L54  
 L58           549 SEA (L56 OR L57)  
 L59           425 SEA L58 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP)  
  
 L60           58 SEA L59 AND L13/IT, TI, CC, CT, ST, STP  
 L61           37 SEA L60 AND L16/IT, TI, CC, CT, ST, STP  
 L62           1 SEA L61 AND (L6 OR L7 OR L8 OR L9)  
 L63           36 SEA L61 NOT L62  
 L64           28 SEA L63 AND L10  
 L65           21 SEA L64 AND (L14/IT, TI, CC, CT, ST, STP, BI, AB OR L24/IT, TI, CC, CT, ST  
               , STP, BI, AB)  
 L67           9486 SEA ((L11 OR L12) (5A) (L16 OR L17))(10A) L13  
 L68           11 SEA L65 AND L67

=> d que 188

L6           QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7           QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8           QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9           QUE ABB=ON PLU=ON NEOSE/CS, SO, PA  
 L10           QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
               <2004 OR REVIEW/DT  
 L11           QUE ABB=ON PLU=ON AB  
 L12           QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES ))  
  
 L13           QUE ABB=ON PLU=ON TOXIN  
 L14           QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L15           QUE ABB=ON PLU=ON AMPLIF?  
 L16           QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17           QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
               OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18           QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
               LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
               ?)  
 L19           QUE ABB=ON PLU=ON PEG  
 L20           QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
               POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?  
               OR ETHYLENEGLYCOL)) OR (POLY(ETHYLENE(W)(OXID? OR GLYCOL?  
               )) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(  
               ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (

POLY(1T)OXY(1T)ETHANEDIYL)  
L22 QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHANE(W)DIYL)))  
L23 QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPEPTID? OR HEXAPEPTID?  
L24 QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACCARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS?  
L29 QUE ABB=ON PLU=ON A61K0039-395/IPC  
L30 QUE ABB=ON PLU=ON A61K0039-44/IPC  
L31 QUE ABB=ON PLU=ON C07K0016-46/IPC  
L32 QUE ABB=ON PLU=ON C07K0017-08/IPC  
L70 QUE ABB=ON PLU=ON RA00C8/DCN OR 184587/DCR, DCRE, KW  
L71 QUE ABB=ON PLU=ON (R00351 OR P8004)/PLE  
L72 QUE ABB=ON PLU=ON "L8"/M0,M1,M2,M3,M4,M5,M6  
L73 QUE ABB=ON PLU=ON K224/M0,M1,M2,M3,M4,M5,M6  
L74 660 SEA FILE=WPIX ABB=ON PLU=ON L70 AND L71  
L75 214 SEA FILE=WPIX ABB=ON PLU=ON L74 AND L72  
L76 40 SEA FILE=WPIX ABB=ON PLU=ON L75 AND L73  
L77 12 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L29 OR L30 OR L31 OR L32)  
L79 852 SEA FILE=WPIX ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(20A)L13  
L80 1471 SEA FILE=WPIX ABB=ON PLU=ON (((L11 OR L12) (5A)(L16 OR L17))(20A)L23)(L)L13  
L81 12 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80))  
L82 1 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L79 OR L80)  
L83 12 SEA FILE=WPIX ABB=ON PLU=ON (L81 OR L82)  
L84 12 SEA FILE=WPIX ABB=ON PLU=ON L83 AND (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24)  
L85 12 SEA FILE=WPIX ABB=ON PLU=ON (L83 OR L84)  
L86 1 SEA FILE=WPIX ABB=ON PLU=ON L85 AND (L6 OR L7 OR L8 OR L9)  
L87 11 SEA FILE=WPIX ABB=ON PLU=ON L85 NOT L86  
L88 10 SEA FILE=WPIX ABB=ON PLU=ON L87 AND L10

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=> d que nos 1103
L4      1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN
L5      QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25
            322-68-3DP"
L6      QUE ABB=ON PLU=ON DEFREES, S?/AU
L7      QUE ABB=ON PLU=ON DE FREES, S?/AU
L8      QUE ABB=ON PLU=ON WANG, Z?/AU
L9      QUE ABB=ON PLU=ON NEOSE/CS,SO,PA
L10     QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY
            <2004 OR REVIEW/DT
L11     QUE ABB=ON PLU=ON AB
L12     QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES
            ))
L13     QUE ABB=ON PLU=ON TOXIN
L16     QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
L17     QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?
            OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?
L18     QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKYLEN?)
            OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?
            ?)
L19     QUE ABB=ON PLU=ON PEG
L20     QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?
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POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID? OR ETHYLENEGLYCOL?)) OR (POLY(ETHYLENE(W) (OXID? OR GLYCOL?)) OR (?POLYETHYLEN? (1T) (OXID? OR GLYCOL?)) OR (POLY(1T) (ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
L21 QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
L22 QUE ABB=ON PLU=ON POLY(1W) (OXY(4W) (ETHANEDIYL OR (ETHANE(W)DIYL)))  
L33 STR  
L35 120 SEA FILE=REGISTRY SSS FUL L33  
L89 QUE ABB=ON PLU=ON ANTIBODIES+PFT,OLD,NEW,NT/CT  
L90 652 SEA FILE=MEDLINE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17)) (15A)L13  
L91 QUE ABB=ON PLU=ON "TOXINS, BIOLOGICAL"+PFT,OLD,NEW,NT/  
CT  
L92 18 SEA FILE=MEDLINE ABB=ON PLU=ON L4  
L93 QUE ABB=ON PLU=ON "POLYETHYLENE GLYCOLS"+PFT,OLD,NEW,N  
T/CT  
L94 0 SEA FILE=MEDLINE ABB=ON PLU=ON L35  
L95 4 SEA FILE=MEDLINE ABB=ON PLU=ON L90 AND ((L92 OR L93) OR L5  
OR (L19 OR L20 OR L21 OR L22))  
L96 261 SEA FILE=MEDLINE ABB=ON PLU=ON L90 AND L89 AND L91  
L97 0 SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND (L92 OR L93 OR L94 OR  
(L18 OR L19 OR L20 OR L21 OR L22))  
L98 QUE ABB=ON PLU=ON POLYMERS+PFT,OLD,NEW,NT/CT  
L99 5 SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND L98  
L100 9 SEA FILE=MEDLINE ABB=ON PLU=ON L95 OR L97 OR L99  
L101 0 SEA FILE=MEDLINE ABB=ON PLU=ON L100 AND (L6 OR L7 OR L8 OR  
L9)  
L102 9 SEA FILE=MEDLINE ABB=ON PLU=ON L100 NOT L101  
L103 7 SEA FILE=MEDLINE ABB=ON PLU=ON L102 AND L10

=> d que nos l1121

L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN  
L5 QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25  
322-68-3DP"  
L6 QUE ABB=ON PLU=ON DEFREES, S?/AU  
L7 QUE ABB=ON PLU=ON DE FREES, S?/AU  
L8 QUE ABB=ON PLU=ON WANG, Z?/AU  
L9 QUE ABB=ON PLU=ON NEOSE/CS, SO, PA  
L10 QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
<2004 OR REVIEW/DT  
L11 QUE ABB=ON PLU=ON AB  
L12 QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W) (BODY OR BODIES  
))  
L13 QUE ABB=ON PLU=ON TOXIN  
L14 QUE ABB=ON PLU=ON ?GLYCOSYL?  
L15 QUE ABB=ON PLU=ON AMPLIF?  
L16 QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
L17 QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
L18 QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
?)  
L19 QUE ABB=ON PLU=ON PEG  
L20 QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID?  
OR ETHYLENEGLYCOL?)) OR (POLY(ETHYLENE(W) (OXID? OR GLYCOL?  
)) OR (?POLYETHYLEN? (1T) (OXID? OR GLYCOL?)) OR (POLY(1T) (

ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
 L22           QUE ABB=ON PLU=ON POLY(1W) (OXY(4W) (ETHANEDIYL OR (ETHANE(W)DIYL)))  
 L23           QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPEPTID? OR HEXAPEPTID?  
 L24           QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACCHARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS?  
 L33           STR  
 L35        120 SEA FILE=REGISTRY SSS FUL L33  
 L104          QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT  
 L105          QUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT  
 L106        575 SEA FILE=EMBASE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17)) (15A)L13  
 L107          0 SEA FILE=EMBASE ABB=ON PLU=ON L35  
 L108        15267 SEA FILE=EMBASE ABB=ON PLU=ON L4  
 L109          QUE ABB=ON PLU=ON MACROGOL+PFT,OLD,NEW,NT/CT  
 L110          0 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L107  
 L111        3 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND ((L108 OR L109) OR (L18 OR L19 OR L20 OR L21 OR L22) OR L5)  
 L112        308 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L104 AND L105  
 L114          QUE ABB=ON PLU=ON CONJUGATE+PFT,OLD,NEW,NT/CT  
 L115          8 SEA FILE=EMBASE ABB=ON PLU=ON L112 AND L114  
 L116        11 SEA FILE=EMBASE ABB=ON PLU=ON (L110 OR L111) OR L115  
 L117        11 SEA FILE=EMBASE ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24)  
 L118        11 SEA FILE=EMBASE ABB=ON PLU=ON (L116 OR L117)  
 L119          0 SEA FILE=EMBASE ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR L9)  
 L120        11 SEA FILE=EMBASE ABB=ON PLU=ON L118 NOT L119  
 L121        10 SEA FILE=EMBASE ABB=ON PLU=ON L120 AND L10

=> d his l133

(FILE 'BIOSIS, CABA, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30 APR 2008)  
 L133        4 S L132 AND (L14 OR L24)

=> d que nos l133

L4        1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN  
 L5        QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25322-68-3DP"  
 L6        QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7        QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8        QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9        QUE ABB=ON PLU=ON NEOSE/CS,SO,PA  
 L10       QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY<2004 OR REVIEW/DT  
 L11       QUE ABB=ON PLU=ON AB  
 L12       QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES))  
 L13       QUE ABB=ON PLU=ON TOXIN  
 L14       QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L16       QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17       QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?

OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
L18           QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
?)  
L19           QUE ABB=ON PLU=ON PEG  
L20           QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?  
OR ETHYLENEGGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?  
)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(  
ETHYLENEOXID? OR ETHYLENEGGLYCOL?))  
L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (  
POLY(1T)OXY(1T)ETHANEDIYL)  
L22           QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA  
NE(W)DIYL)))  
L24           QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC  
HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR  
PENTOS?  
L33           STR  
L35         120 SEA FILE=REGISTRY SSS FUL L33  
L122         1348 SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13  
L123         1 SEA L35  
L124         0 SEA L122 AND L123  
L125         18194 SEA L4  
L126         10 SEA L122 AND (L125 OR L5 OR (L18 OR L19 OR L20 OR L21 OR L22))  
L127         393 SEA L122 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP)  
AND L13/IT, TI, CC, CT, ST, STP AND (L16/IT, TI, CC, CT, ST, STP OR  
L17/IT, TI, CC, CT, ST, STP)  
L128         171 SEA L127 AND L16/IT, TI, CC, CT, ST, STP  
L129         181 SEA L124 OR L126 OR L128  
L130         1 SEA L129 AND (L6 OR L7 OR L8 OR L9)  
L131         180 SEA L129 NOT L130  
L132         161 SEA L131 AND L10  
L133         4 SEA L132 AND (L14 OR L24)

=> d que l136  
L11           QUE ABB=ON PLU=ON AB  
L12           QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES  
))  
L13           QUE ABB=ON PLU=ON TOXIN  
L16           QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
L17           QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
L18           QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
?)  
L19           QUE ABB=ON PLU=ON PEG  
L20           QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?  
OR ETHYLENEGGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?  
)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(  
ETHYLENEOXID? OR ETHYLENEGGLYCOL?))  
L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (  
POLY(1T)OXY(1T)ETHANEDIYL)  
L22           QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA  
NE(W)DIYL)))  
L29           QUE ABB=ON PLU=ON A61K0039-395/IPC  
L30           QUE ABB=ON PLU=ON A61K0039-44/IPC  
L31           QUE ABB=ON PLU=ON C07K0016-46/IPC

L32           QUE ABB=ON PLU=ON C07K0017-08/IPC  
 L134        13 SEA FILE=JAPIO ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR  
               L17)) (15A)L13  
 L135        9 SEA FILE=JAPIO ABB=ON PLU=ON L134 AND (L29 OR L30 OR L31 OR  
               L32)  
 L136        1 SEA FILE=JAPIO ABB=ON PLU=ON L135 AND (L18 OR L19 OR L20 OR  
               L21 OR L22)

=> d his l146

(FILE 'PASCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB,  
 SCISEARCH, CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008)  
 L146        15 S L145 AND L10

FILE 'STNGUIDE' ENTERED AT 10:22:46 ON 30 APR 2008

FILE 'REGISTRY' ENTERED AT 10:23:27 ON 30 APR 2008

FILE 'STNGUIDE' ENTERED AT 10:23:29 ON 30 APR 2008

=> d que l146

L6           QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7           QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8           QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9           QUE ABB=ON PLU=ON NEOSE/CS,SO,PA  
 L10          QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
               <2004 OR REVIEW/DT  
 L11          QUE ABB=ON PLU=ON AB  
 L12          QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES  
               ))  
 L13          QUE ABB=ON PLU=ON TOXIN  
 L14          QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L16          QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17          QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
               OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18          QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
               LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
               ?)  
 L19          QUE ABB=ON PLU=ON PEG  
 L20          QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
               POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID?  
               OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?  
               )) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(  
               ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21          QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (  
               POLY(1T)OXY(1T)ETHANEDIYL)  
 L22          QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHA  
               NE(W))DIYL)))  
 L24          QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC  
               HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR  
               PENTOS?  
 L137        1710 SEA ((L11 OR L12) (5A) (L16 OR L17)) (15A) L13  
 L138        28 SEA L137 AND (L18 OR L19 OR L20 OR L21 OR L22)  
 L139        67 SEA L137 AND (DISULF? OR DISULPH? OR ((SULFUR OR SULPHUR) (2W) (S  
               ULFUR OR SULPHUR)) OR (S(1W) S))  
 L140        81 SEA L137 AND (L14 OR L24)  
 L141        0 SEA L138 AND L139  
 L142        4 SEA L138 AND L140  
 L143        28 SEA L138 OR L141 OR L142

L144            0 SEA L143 AND (L6 OR L7 OR L8 OR L9)  
 L145            28 SEA L143 NOT L144  
 L146            15 SEA L145 AND L10

=> dup rem l53 l68 l88 l103 l121 l133 l136 l146  
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FILE 'BIOENG' ENTERED AT 10:26:03 ON 30 APR 2008  
 COPYRIGHT (C) 2008 Cambridge Scientific Abstracts (CSA)

FILE 'BIOTECHDS' ENTERED AT 10:26:03 ON 30 APR 2008  
 COPYRIGHT (C) 2008 THE THOMSON CORPORATION

FILE 'SCISEARCH' ENTERED AT 10:26:03 ON 30 APR 2008  
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PROCESSING COMPLETED FOR L53

PROCESSING COMPLETED FOR L68

PROCESSING COMPLETED FOR L88

PROCESSING COMPLETED FOR L103

PROCESSING COMPLETED FOR L121

PROCESSING COMPLETED FOR L133

PROCESSING COMPLETED FOR L136

PROCESSING COMPLETED FOR L146

L147            84 DUP REM L53 L68 L88 L103 L121 L133 L136 L146 (9 DUPLICATES REMOVED)  
                 ANSWERS '1-35' FROM FILE HCAPLUS  
                 ANSWERS '36-44' FROM FILE USPATFULL  
                 ANSWERS '45-54' FROM FILE WPIX  
                 ANSWERS '55-60' FROM FILE MEDLINE  
                 ANSWERS '61-67' FROM FILE EMBASE  
                 ANSWERS '68-69' FROM FILE BIOSIS  
                 ANSWER '70' FROM FILE JAPIO  
                 ANSWER '71' FROM FILE BIOENG  
                 ANSWERS '72-82' FROM FILE BIOTECHDS

10/565,331

ANSWERS '83-84' FROM FILE SCISEARCH

=> file stnguide  
FILE 'STNGUIDE' ENTERED AT 10:26:22 ON 30 APR 2008  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Apr 25, 2008 (20080425/UP).

=> d ibib ed abs hitind hitstr  
 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE,  
 BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 1 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 2003:971272 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:26914  
 TITLE: Anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection  
 INVENTOR(S): Olson, William C.; Maddon, Paul J.; Tsurushita, Naoya;  
 Hinton, Paul R.; Vasquez, Maximiliano  
 PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA; Pdl Biopharma,  
 Inc.  
 SOURCE: U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S.  
 Provisional Ser. No. 358,886.  
 CODEN: UXSXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030228306	A1	20031211	US 2003-371483	20030221 <--
US 7122185	B2	20061017		
US 20070031408	A1	20070208	US 2006-581945	20061016 <--
PRIORITY APPLN. INFO.:			US 2002-358886P	P 20020222 <--
			US 2003-371483	A1 20030221 <--

ED Entered STN: 12 Dec 2003

AB The invention is directed an anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVg1:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising an expression product of either a plasmid designated pVg1:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg1:HuPRO140 (mutB+D+I)-VH (ATCC Deposit Designation PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human cell. This invention also provides a method of inhibiting infection of a CD4+ cell which comprises contacting the CD4+ cell with said antibody which binds to CCR5 on the surface of a human cell, under conditions effective to treat the HIV-1-infected subject. This invention also provides a method of treating a subject afflicted with HIV-1 or preventing a subject from contracting an HIV-1 infection which comprises administering to the subject an effective HIV-1 infection-preventing dosage amount of an anti-CCR5 antibody. It was shown that anti-CCR5 antibodies inhibit gp120 binding during HIV-1 entry. High effectiveness of anti-CCR5 antibodies in controlling established HIV-1 infection was demonstrated in the mouse model of HIV-1 infection.

IC ICM A61K039-395

ICS C12P021-04; C07K016-28

INCL 424143100; X53-038.822; X43-5 7.021

CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 3, 63

ST CCR5 antibody light heavy chain conjugate HIV1  
 antiviral

IT Chemokine receptors

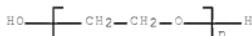
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (CCR5; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Animal cell line  
 (CHO; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Animal cell line  
 (COS; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG1; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Antiviral agents  
 Biomarkers  
 Genetic vectors  
 Human  
 Human immunodeficiency virus 1  
 Molecular cloning  
 (anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Nucleic acids  
 Polymers, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Polyoxalkylenes, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibody conjugates, PEG; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Cytotoxic agents  
 (antibody conjugates; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Radionuclides, biological studies  
Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibody conjugates; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Polyoxalkylenes, biological studies  
Polysaccharides, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibody conjugates; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Blood serum  
 (antibody half life or clearance rate; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)

- IT Polysaccharides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (branched and unbranched, antibody conjugates,  
anti-CCR5 antibody and conjugates for treating  
 human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (carriers; anti-CCR5 antibody and conjugates for  
 treating human immunodeficiency virus 1 infection)
- IT Human  
 (cells; anti-CCR5 antibody and conjugates for  
 treating human immunodeficiency virus 1 infection)
- IT Chemokines  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (combination with; anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection)
- IT CD4-positive T cell  
 (expressing CCR5, inhibiting HIV-1 infection in; anti-CCR5  
antibody and conjugates for treating human  
 immunodeficiency virus 1 infection)
- IT cDNA sequences  
 (for anti-CCR5 antibodies; anti-CCR5 antibody and  
conjugates for treating human immunodeficiency virus 1  
 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (fragments; anti-CCR5 antibody and conjugates for  
 treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (fusion products; anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection)
- IT Envelope proteins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (gp120env, inhibiting gp120-CD4 binding; anti-CCR5  
antibody and conjugates for treating human  
 immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (heavy chain; anti-CCR5 antibody and conjugates for  
 treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (humanized; anti-CCR5 antibody and conjugates for  
 treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (immunoconjugates; anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (immunotoxins; anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection)

- IT CD4 (antigen)  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (inhibiting gp120-CD4 binding; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (injections, i.m.; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (injections, i.v.; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (injections, s.c.; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (light chain; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Animal cell  
 (mammalian; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Epitopes  
 (mapping; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Fluorescent substances  
 (marker; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Protein sequences  
 (of anti-CCR5 antibodies; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Plasmid vectors  
 (pVg1:HuPRO140 (mutB+D+I)-VH; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Plasmid vectors  
 (pVg1:HuPRO140 HG2-VH; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Plasmid vectors  
 (pVκ:HuPRO140-Vκ; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT Drug delivery systems  
 (polymer-bound; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)
- IT 25322-68-3D, Polyethylene glycol, antibody conjugates  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (PEG; anti-CCR5 antibody and conjugates for treating human immunodeficiency virus 1 infection)

- IT 633361-50-9DP, conjugates 633361-53-2DP, conjugates  
 633361-56-5DP, conjugates  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (amino acid sequence; anti-CCR5 antibody and  
conjugates for treating human immunodeficiency virus 1  
 infection)
- IT 9002-89-5D, Poly(vinyl alcohol), derivs., antibody  
conjugates 9005-49-6D, Heparin, polymers, antibody  
conjugates 25087-26-7D, Polymethacrylic acid, antibody  
conjugates 70226-44-7D, Heparan, polymers, antibody  
conjugates  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-CCR5 antibody and conjugates for treating  
 human immunodeficiency virus 1 infection)
- IT 633361-49-6P 633361-51-0P 633361-52-1P 633361-54-3P 633361-55-4P  
 633361-57-6P  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (nucleotide sequence; anti-CCR5 antibody and  
conjugates for treating human immunodeficiency virus 1  
 infection)
- IT 200803-28-7 200803-29-8 228120-60-3 228120-61-4  
 RL: PRP (Properties)  
 (unclaimed sequence; anti-CCR5 antibody and  
conjugates for treating human immunodeficiency virus 1  
 infection)
- IT 25322-68-3D, Polyethylene glycol,  
antibody conjugates  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (PEG; anti-CCR5 antibody and conjugates  
 for treating human immunodeficiency virus 1 infection)
- RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



=> d ibib ed abs hitind hitstr 2-35  
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 BIOSIS, JATPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 2 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 3  
 ACCESSION NUMBER: 1989:113004 HCPLUS Full-text  
 DOCUMENT NUMBER: 110:113004  
 ORIGINAL REFERENCE NO.: 110:18635a,18638a  
 TITLE: Tolerogenic conjugates of xenogeneic  
 monoclonal antibodies with  
monomethoxypolyethylene glycol. I.

Induction of long-lasting tolerance to xenogeneic monoclonal antibodies

AUTHOR(S): Maiti, Pradip K.; Lang, Glen M.; Sehon, A. H.  
 CORPORATE SOURCE: Dep. Immunol., Univ. Manitoba, Winnipeg, MB, R3E 0W3, Can.  
 SOURCE: International Journal of Cancer (1988),  
 (Suppl. 3), 17-22  
 CODEN: IJCAW; ISSN: 0020-7136

DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 03 Apr 1989

AB The therapeutic effectiveness of xenogeneic monoclonal antibodies (MAbs) (xIg) or their conjugates with toxins (xIg-Tx) is undermined because of their inherent immunogenicity. This complication may be overcome by converting the antigenic xIg to tolerogenic derivs. by coupling an appropriate number of monomethoxypolyethylene glycol (mPEG) chains (mol. weight 6400) onto an xIg mol. In this study, the test system consisted of inbred mice and human (myeloma) monoclonal Igs (H IgG) which were used in lieu of xIg; the immunizing antigen was heat-aggregated H IgG. The results of a variety of exptl. protocols demonstrate that a long-lasting suppression (>95%) of anti-H IgG antibodies for periods in excess of 300 days was achieved by administration of tolerogenic H IgG(mPEG)n conjugates in spite of multiple injections of the immunizing antigen. Thus, pre-treatment of hosts with mPEG conjugates of xIg or of xIg-Tx is envisaged as a potential method for overcoming the antigenicity of these antitumor agents.

CC 15-10 (Immunochemistry)

Section cross-reference(s): 1

ST xenogeneic monoclonal antibody tolerance monomethoxyPEG  
 antitumor

IT Immune tolerance

(to xenogeneic monoclonal antibodies,  
monomethoxypolyethylene glycol conjugation  
induction of)

IT Neoplasm inhibitors

(xenogeneic monoclonal antibodies or immunotoxins as,  
 antigenicity of, monomethoxypolyethylene glycol  
 induction of tolerance to)

IT Toxins

RL: BIOL (Biological study)  
 (immuno-, xenogeneic monoclonal antibody complexes,  
monomethoxypolyethylene glycol conjugates,  
 long-lasting tolerance induction by)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (xeno-, monoclonal, tolerance to, monomethoxypolyethylene  
glycol conjugates with xenogeneic monoclonal  
antibodies for induction of)

IT Immunoglobulins

RL: BIOL (Biological study)  
 (xeno-, monoclonal, conjugates, with  
monomethoxypolyethylene glycol, for xenogeneic  
 monoclonal antibodies immune tolerance induction)

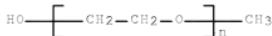
IT 9004-74-4

RL: BIOL (Biological study)  
 (immune tolerance to xenogeneic monoclonal antibodies  
 induction by)

IT 9004-74-4

RL: BIOL (Biological study)  
 (immune tolerance to xenogeneic monoclonal antibodies

induction by)  
 RN 9004-74-4 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -methyl- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 3 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:638618 HCPLUS Full-text  
 DOCUMENT NUMBER: 143:131809  
 TITLE: Production of human monoclonal antibodies  
 INVENTOR(S): Tamarkin, Lawrence; Paciotti, Giulio F.  
 PATENT ASSIGNEE(S): Cytimmune Sciences, Inc., USA  
 SOURCE: PCT Int. Appl., 61 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005065121	A2	20050721	WO 2004-US40785	20041202 <--
WO 2005065121	A3	20051229		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004311630	A1	20050721	AU 2004-311630	20041202 <--
CA 2548179	A1	20050721	CA 2004-2548179	20041202 <--
US 20050175583	A1	20050811	US 2004-4623	20041202 <--
EP 1694301	A2	20060830	EP 2004-821049	20041202 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1925843	A	20070307	CN 2004-80041234	20041202 <--
JP 2008504216	T	20080214	JP 2006-542857	20041202 <--
PRIORITY APPLN. INFO.:			US 2003-526360P	P 20031202 <--
			WO 2004-US40785	W 20041202

ED Entered STN: 22 Jul 2005  
 AB The authors disclose compns. and methods for making human monoclonal antibodies. The methods comprise tethered colloidal gold microparticle scaffolds that replicate the immune system components, particularly an antigen-presenting cell (APC) with costimulatory (B7) and adhesive (ICAM) components of the immune synapse. Addnl., the present invention may further comprise synthetic T-cells.  
 IC ICM GOIN  
 CC 15-1 (Immunochemistry)  
 Section cross-reference(s): 2, 14

- ST human monoclonal antibody artificial accessory cell; artificial T lymphocyte colloidal gold human antibody
- IT Hemopoietins  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (FLT3 ligand, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (IgG, monoclonal; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers)
- IT Antibodies and Immunoglobulins  
 (IgM, hyperimmunoglobulin, X-linked; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of)
- IT Melanoma-associated antigens  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (MAGE (melanoma-associated antigen-encoding gene), colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Antigens  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (MART-1, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Mucins  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (MUC1, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Blood-group substances  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (Rh, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Antibodies and Immunoglobulins  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (X-linked infantile hypogammaglobulinemia; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of)
- IT Immunostimulants  
 (adjuvants; of artificial antigen-presenting cells for generation of human antibody response)
- IT Antigens  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (autoantigens, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Lipopolysaccharides  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bacterial; of artificial antigen-presenting cells for generation of human antibody response)
- IT Medical goods  
 (biodegradable; of artificial antigen-presenting cells for generation of human antibody response)
- IT Angiogenesis inhibitors

- Immunomodulators  
 (colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Angiogenic factors  
 DNA  
 Heat-shock proteins  
 Histocompatibility antigens  
 Interleukin 1  
 Interleukin 10  
 Interleukin 11  
 Interleukin 12  
 Interleukin 13  
 Interleukin 2  
 Interleukin 3  
 Interleukin 4  
 Interleukin 5  
 Interleukin 6  
 Interleukin 7  
 Interleukin 8  
 Lipid A  
Lymphotoxin  
 Macrophage migration inhibitory factor  
 Nucleotides, biological studies  
 Polynucleotides  
 Prostate-specific antigen  
 RNA  
 Tumor antigens  
 Tumor necrosis factors  
 mRNA  
 p53 (protein)  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Drug delivery systems  
 (emulsions; of artificial antigen-presenting cells for generation of human antibody response)
- IT Toxins  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (endotoxins, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Lymph node  
 (germinal center; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers)
- IT T cell (lymphocyte)  
 (helper cell; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers)
- IT Antibodies and Immunoglobulins  
 (hypogammaglobulinemia, transient hypogammaglobulinemia of infancy; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of)
- IT Avidins  
Polyoxalkylenes, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (in generation of artificial antigen-presenting cells)
- IT Drug delivery systems

- (liposomes; of artificial antigen-presenting cells for generation of human antibody response)
- IT Biodegradable materials
  - (medical; of artificial antigen-presenting cells for generation of human antibody response)
- IT Drug delivery systems
  - (microspheres; of artificial antigen-presenting cells for generation of human antibody response)
- IT Antibodies and Immunoglobulins
  - RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
    - (monoclonal; production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers)
- IT Inflammation
  - Kidney, disease
    - (nephritis, antibody-mediated; colloidal gold microparticle scaffolds mimicking antigen-presenting cells for use in immunotherapy of)
- IT Mycobacterium butyricum
  - Mycobacterium tuberculosis
    - (of artificial antigen-presenting cells for generation of human antibody response)
- IT Toxins
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - (pertussis; of artificial antigen-presenting cells for generation of human antibody response)
- IT Antigen-presenting cell
  - Human
    - (production of human monoclonal antibodies using colloidal gold microparticle scaffolds mimicking antigen-presenting cells, T-cells, or germinal centers)
- IT Enterotoxins
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - (staphylococcal B, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Toxins
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - (tetanus; of artificial antigen-presenting cells for generation of human antibody response)
- IT Interferons
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - (type I, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Transforming growth factors
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - ( $\alpha$ -, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Transforming growth factors
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
    - ( $\beta$ -, colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)
- IT Interferons
  - RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

( $\gamma$ , colloidal gold conjugates; of artificial antigen-presenting cells stimulating human antibody response)

IT 7429-90-5D, Aluminum, conjugates with immunostimulatory mols.

7439-89-6D, Iron, conjugates with immunostimulatory mols.

7440-06-4D, Platinum, conjugates with immunostimulatory mols.

7440-22-4D, Silver, conjugates with immunostimulatory mols.

7440-57-5D, Gold, conjugates with immunostimulatory mols.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

(colloidal microparticles; in generation of human antibody response)

IT 58-85-5, Biotin 25104-18-1, Poly-L-lysine 25322-68-3,

Polyethylene glycol 38000-06-5, Poly-L-lysine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

(in generation of artificial antigen-presenting cells)

IT 9003-53-6, Polystyrene

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

(of artificial antigen-presenting cells for generation of human antibody response)

IT 9001-84-7D, Phospholipase A2, conjugates with colloidal gold microparticles 9002-10-2D, Tyrosinase, conjugates with colloidal gold microparticles 9002-71-5D, TSH, conjugates with colloidal gold microparticles 62031-54-3D, Fibroblast growth factor, conjugates with colloidal gold microparticles 81627-83-0D, M-CSF, conjugates with colloidal gold microparticles

83869-56-1D, GM-CSF, conjugates with colloidal gold microparticles 127464-60-2D, VEGF, conjugates with colloidal gold microparticles 143011-72-7D, G-CSF, conjugates with colloidal gold microparticles 572921-97-2D, Angiogenin, conjugates with colloidal gold microparticles

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

(of artificial antigen-presenting cells stimulating human antibody response)

IT 25322-68-3, Polyethylene glycol

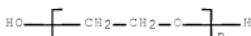
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

## (Uses)

(in generation of artificial antigen-presenting cells)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 4 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:588275 HCPLUS Full-text

DOCUMENT NUMBER: 143:114046

TITLE: Human interleukin 18-binding proteins and

antibodies and conjugates for

treating IL-18-related inflammatory diseases

INVENTOR(S): Ghayur, Tariq; Labkovsky, Boris; Voss, Jeffrey W.;

Green, Larry; Babcock, John; Jia, Xiao-chi; Wieler, James; Kang, Jaspal Singh; Hedberg, Brad  
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PRIORITY APPLN. INFO.:		MARPAT 143:114046		US 2003-519474P P 20031112 <--

OTHER SOURCE(S): MARPAT 143:114046

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AB The present invention encompasses IL-18 binding proteins, particularly antibodies that bind human interleukin-18 (hIL-18). Specifically, the invention relates to antibodies that are entirely human antibodies. Preferred antibodies have high affinity for hIL-18 and/or that neutralize hIL-18 activity in vitro and in vivo. An antibody of the invention can be a full-length antibody or an antigen-binding portion thereof. Method of making and method of using the antibodies of the invention are also provided. The antibodies, or antibody portions, of the invention are useful for detecting hIL-18 and for inhibiting hIL-18 activity, e.g., in a human subject suffering from a disorder in which hIL-18 activity is detrimental.

IC ICM C07K016-24

ICS C07H021-04; C12P021-04; A61K039-395; C12N005-06

INCL 424145100; 530388230; 435069100; 435320100; 435335000; 536023530;  
 424486000; 424488000

CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 3, 8, 63

ST human interleukin 18 binding protein antibody conjugate inflammatory disease

IT Chlamydia

Salmonella

Yersinia

(-associated arthropathy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Hepatitis

(B; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Hepatitis

(C; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Animal cell line

(CHO; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Animal cell line

(COS; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

IT Inflammation

(Crohn's disease; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

- IT Intestine, disease  
 (Crohn's; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Kidney, disease  
 (Goodpasture's syndrome; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Purpura (disease)  
 (Henoch-Schoenlein's; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Nervous system, disease  
 (Huntington's chorea; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Proteins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IL-18-binding; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgA; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgD; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgE; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG1; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG2; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

- THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG3; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgM; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Blood vessel, disease  
 (Kawasaki; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Arthritis  
 (Reiter's syndrome; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Animal cell line  
 (SF9; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Granulomatous disease  
 (Wegener's granulomatosis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 (acquired hypogammaglobulinemia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Immune disease  
 Liver, disease  
 (acute and chronic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Pain  
 Rheumatic fever  
 (acute; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Respiratory distress syndrome  
 (adult; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

- IT Cirrhosis  
 (alc.; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Ethers, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (alkyl vinyl, polymers, co-; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Polysaccharides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (aminodeoxy, glyco-; antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation  
 Spinal column, disease  
 (ankylosing spondylitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Alkylating agents, biological  
 Angiogenesis inhibitors  
 Antibiotics  
 Cytotoxic agents  
 Drugs  
 Fluorescent substances  
 Labels  
 Luminescent substances  
 Magnetic materials  
 (antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Albumins, biological studies  
 Anthracyclines  
 Collagens, biological studies  
 Enzymes, biological studies  
 Fibrins  
 Gelatins, biological studies  
 Growth factors, animal  
 Oligosaccharides, biological studies  
 Polysaccharides, biological studies  
 Radionuclides, biological studies  
 Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Cytotoxic agents  
 (antimetabolites, antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Alopecia  
 (areata; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Artery, disease  
 Inflammation  
 (arteritis, Takayasu's disease; human interleukin 18-binding

- proteins and antibodies and conjugates for treating  
IL-18-related inflammatory diseases)
- IT Artery, disease
  - Inflammation
    - (arteritis, giant cell; human interleukin 18-binding proteins and antibodies and conjugates for treating  
IL-18-related inflammatory diseases)
- IT Disease, animal
  - (arthropathy, seroneg. or psoriatic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Allergy
  - (atopy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hypothyroidism
  - (atrophic autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Anemia (disease)
  - Autoimmune disease
    - (autoimmune hemolytic anemia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Autoimmune disease
  - (autoimmune thrombocytopenia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Autoimmune disease
  - Inflammation
    - Thyroid gland, disease
      - (autoimmune thyroiditis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hepatitis
  - (autoimmune, cryptogenic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hypoglycemia
  - Thyroid gland, disease
    - (autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Sperm
  - (autoimmunity; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Luminescent substances
  - (bioluminescent, antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Bronchi, disease
  - Inflammation
    - (bronchiolitis, obliterans; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Skin, disease
  - (bullosus, autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

- IT Mycosis  
 (candidiasis, chronic mucocutaneous; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems  
 (carriers; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Biology  
 (cell, host; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Aves
- Insecta  
 (cell; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Protista  
 (cells; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (chimeric; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Biliary tract, disease  
 (cholestasis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Infection  
 (chronic active hepatitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Fatigue, biological  
 (chronic fatigue syndrome; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Pain  
 (chronic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Polymers, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (co-; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Enzymes, biological studies  
Oligosaccharides, biological studies  
Polysaccharides, biological studies  
Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, antibody; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins

- RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Molecules  
(costimulatory; blockers; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Disease, animal  
(deficiency, type I sporadic polyglandular; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Mental and behavioral disorders  
(depression; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Peptides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(depsipeptides, polypeptide; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Heart, disease  
(dilated cardiomyopathy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lupus erythematosus  
(discoid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Platelet (blood)  
(disease, autoimmune thrombocytopenia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Joint, anatomical  
(disease, seroneg. or psoriatic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Platelet (blood)  
(disease, thrombocytopenia, idiopathic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Blood coagulation disorders  
(disseminated intravascular coagulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lung, disease  
(eosinophilia, chronic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Heart, disease  
 Ovary, disease  
(failure; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Fertility disorders  
(female; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related

- inflammatory diseases)
- IT Lung, disease  
 (fibrosis; cryptogenic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lung, disease  
 Radiation  
 (fibrosis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Interleukin receptors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (for IL-18; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fragments; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems  
 (freeze-dried; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation  
 Kidney, disease  
 (glomerulonephritis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Oligosaccharides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (glycaminic; antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Transplant and Transplantation  
 (graft-vs.-host reaction; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (heavy chain; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT T cell (lymphocyte)  
 (helper cell/inducer, TH1, modulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT T cell (lymphocyte)  
 (helper cell/inducer, TH2, modulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Anemia (disease)  
 (hemolytic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related

inflammatory diseases)  
 IT Injury  
 (hepatic, alc.-induced; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)  
 IT Infection  
 (hepatitis B; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)  
 IT Infection  
 (hepatitis C; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)  
 IT AIDS (disease)  
 Addison's disease  
 Allergy  
 Alopecia  
 Alzheimer's disease  
 Animal cell  
 Antitumor agents  
 Asthma  
 Atherosclerosis  
 Cachexia  
 Connective tissue, disease  
 Crystals  
 Culture media  
 DNA sequences  
 Dermatitis  
 Dermatomyositis  
 Dissociation constant  
 Drug allergy  
Drug delivery systems  
 Escherichia coli  
 Eukaryota  
 Fungi  
 Genetic vectors  
 Gout  
 Graves' disease  
 Human  
 Hyperthyroidism  
 Hypoparathyroidism  
 Infection  
 Inflammation  
 Lung, disease  
 Lyme disease  
 Mammalia  
 Mental and behavioral disorders  
 Molecular cloning  
 Multiple sclerosis  
 Neoplasm  
 Osteoarthritis  
 Parkinson's disease  
 Plant cell  
 Prokaryota  
 Protein sequences  
 Psoriasis  
 Rheumatoid arthritis  
 Saccharomyces cerevisiae  
 Sarcoidosis  
 Schizophrenia

- Sepsis  
 Sjogren syndrome  
 Streptococcus group B  
 Transplant rejection  
 Vitiligo  
 (human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Interleukin 18  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Corticosteroids, biological studies  
 Interleukin 12  
 Nucleic acids  
 Peptides, biological studies  
 Polyesters, biological studies  
 Polymers, biological studies  
Polyoxalkylenes, biological studies  
 Tumor necrosis factors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (humanized; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Blood, disease  
 (idiopathic thrombocytopenia; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Leukocytopenia  
 (idiopathic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems  
 (immunoconjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems  
 (immunotoxins; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Heart, disease  
 (infarction; human interleukin 18-binding proteins and

- antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Parasite  
 (infection; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Intestine, disease  
 (inflammatory; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Apoptosis
- Mitosis  
 (inhibitor-antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Liver, disease  
 (injury, alc.-induced; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Autoimmune disease  
 (insulin-dependent diabetes mellitus; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Diabetes mellitus  
 (insulin-dependent; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation
- Lung, disease  
 (interstitial pneumonitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lung, disease  
 (interstitial, post-inflammatory; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Rheumatoid arthritis  
 (juvenile; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (light chain; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lung, disease  
 (lymphocytic infiltrative; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Fertility disorders  
 (male; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Animal cell  
 (mammalian; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Kidney, disease

- (microscopic vasculitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lymphocyte  
 (migration, recruitment; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT B cell (lymphocyte)  
 Eosinophil  
 Macrophage  
 Monocyte  
 Neutrophil  
 (modulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Cell adhesion molecules  
 Chemokines  
 Cytokines  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (modulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal, neutralizing; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation  
 Spinal cord, disease  
 (myelitis, acute transverse; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Edema  
 Hypothyroidism  
 (myxedema; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lymphocyte  
 (natural killer cell, modulation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Kidney, disease  
 (nephrotic syndrome; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (neutralizing; human interleukin 18-binding proteins and

- antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Agranulocytosis  
 (neutropenia, autoimmune; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hepatitis  
 (nonalc. steatohepatitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Anti-inflammatory agents  
 (nonsteroidal; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Eye, disease  
 (ophthalmia, sympathetic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Esters, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (ortho acid, poly; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pBJ; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pBV; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pEFBOS; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pJV; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pTT3; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pTT; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Genetic vectors  
 (pcDNA; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Skin, disease  
 (pemphigoid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Skin, disease  
 (pemphigus foliaceus; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)

- IT Skin, disease  
 (pemphigus vulgaris; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Artery, disease  
 Inflammation  
 (periarteritis nodosa; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Anemia (disease)  
 (pernicious anemia, acquired or juvenile; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Polyphosphazenes  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (poly(organophosphazenes); human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Anhydrides  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (poly-; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Autoimmune disease  
 Endocrine system, disease  
 (polyglandular syndrome, deficiency; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Alcohols, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyhydric, pluronics; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems  
 (polymer-bound; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Biliary tract, disease  
 (primary biliary cirrhosis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hepatitis  
 (primary sclerosing; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Arthritis  
 (psoriatic arthritis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Fibrosis  
 (pulmonary, cryptogenic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Fibrosis  
 Hypertension  
 (pulmonary; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related

- inflammatory diseases)
- IT Fibrosis
  - (radiation; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Arthritis
  - (reactive; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Connective tissue, disease
  - (scleroderma; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Biliary tract, disease
  - Inflammation
    - (sclerosing cholangitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Arthritis
  - Shock (circulatory collapse)
    - (septic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation
  - Spinal column, disease
    - (spondylitis, rheumatoid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
  - IT Spinal column, disease
    - (spondyloarthropathy; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
  - IT Brain, disease
    - (stroke; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Polysaccharides, biological studies
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (sulfated, antibody conjugates; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Drug delivery systems
  - (sustained-release; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Arthritis
  - Synovial membrane, disease
    - (synovitis, enteropathic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lupus erythematosus
  - (systemic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Autoimmune disease
  - (thyroid; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation

- Thyroid gland, disease  
 (thyroïditis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Shock (circulatory collapse)  
 (toxic shock syndrome; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Psoriasis  
 (type I; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Psoriasis  
 (type II; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Inflammation  
 Intestine, disease  
 (ulcerative colitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Eye, disease  
 Inflammation  
 (uveitis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Lung, disease  
 (vasculitic diffuse; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Blood vessel, disease  
 Inflammation  
 (vasculitis, kidney microscopic; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT Hepatitis  
 (viral, chronic active; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT 57-55-6P, 1,2-Propanediol, biological studies 857325-91-8P, Interleukin 18 (human) 857326-79-5P 857326-80-8P 857326-81-9P 857326-82-0P  
 857326-83-1P 857326-84-2P 857326-85-3P 857326-86-4P 857326-87-5P  
 857326-88-6P 857326-89-7P 857326-90-0P 857326-91-1P 857326-92-2P  
 857326-93-3P 857326-94-4P 857326-95-5P 857326-96-6P 857326-97-7P  
 857326-98-8P 857326-99-9P 857327-00-5P 857327-01-6P 857327-02-7P  
 857327-03-8P 857327-04-9P 857327-05-0P 857327-06-1P 857327-07-2P  
 857327-08-3P 857327-09-4P 857327-10-7P 857327-11-8P 857327-12-9P  
 857327-13-0P 857327-14-1P 857327-15-2P 857327-16-3P  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (amino acid sequence; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT 7439-89-6, Iron, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (hemosiderosis; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)
- IT 141977-02-8DP, derivs and conjugates 173480-65-4DP, derivs and

conjugates 173480-66-5DP, derivs and conjugates  
 217478-43-8DP, derivs and conjugates  
conjugates 220541-02-6DP, derivs and  
 280106-92-5DP, derivs and conjugates  
conjugates 328897-77-4DP, derivs and  
 351881-10-2DP, derivs and conjugates  
conjugates 384331-78-6DP, derivs and  
 694439-07-1DP, derivs and conjugates  
conjugates 705288-83-1DP, derivs and  
 706781-57-9DP, derivs and conjugates  
conjugates 851221-25-5DP, derivs and  
 851221-27-7DP, derivs and conjugates  
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 851221-65-3DP, derivs and conjugates  
conjugates 851221-67-5DP, derivs and  
 851221-68-6DP, derivs and conjugates  
conjugates 851221-70-0DP, derivs and  
 851221-71-1DP, derivs and conjugates  
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 851222-06-5DP, derivs and conjugates  
conjugates 851222-08-7DP, derivs and  
 851222-09-8DP, derivs and conjugates  
conjugates 857257-73-9DP, derivs and conjugates

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies  
 and conjugates for treating IL-18-related inflammatory  
 diseases)

IT 384653-03-6, GenBank AB000584  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
 (Biological study)  
 (human interleukin 18-binding proteins and antibodies  
 and conjugates for treating IL-18-related inflammatory  
 diseases)

IT 57-50-1, Sucrose, biological studies 58-85-5D, Biotin,  
conjugates 59-05-2, Methotrexate 99-20-7, Trehalose  
 108-31-6D, Maleic anhydride, copolymer 585-86-4, Lactitol 7585-39-9D,  
 $\beta$ -Cyclodextrin, 2-hydroxypropanol ether 9002-89-5, Poly(vinyl  
 alcohol) 9003-01-4, Polyacrylic acid 9003-39-8, Poly(vinyl  
 pyrrolidone) 9004-34-6D, Cellulose, derivs. 9004-61-9, Hyaluronic acid  
 9004-74-4, Methoxypolyethylene glycol  
 9005-32-7, Alginic acid 9086-85-5 10028-17-8D, Hydrogen-3,  
conjugates 10043-66-0D, Iodine-131, conjugates,  
 biological studies 10098-91-6D, Yttrium-90, conjugates,  
 biological studies 13967-65-2D, Holmium-166, conjugates,  
 biological studies 14133-76-7D, Technetium-99, conjugates,  
 biological studies 14158-31-7D, Iodine-125, conjugates,  
 biological studies 14265-75-9D, Lutetium-177, conjugates,  
 biological studies 14762-75-5D, Carbon-14, conjugates,  
 biological studies 15117-53-0D, Sulfur-35, conjugates,  
 biological studies 15750-15-9D, Indium-111, conjugates,  
 biological studies 15766-00-4D, Samarium-153, conjugates,  
 biological studies 15802-18-3D, Cyanoacrylic acid, polymers  
 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone  
25322-68-3, Polyethylene glycol 26063-00-3,  
 Poly- $\beta$ -hydroxybutyrate 26100-51-6, Polylactic acid 31621-87-1,  
 Polydioxanone 34346-01-5, Poly(lactic acid-glycolic acid) 53123-88-9,  
 Rapamycin 79217-60-0, Cyclosporin 104987-11-3, FK 506 139810-14-3,  
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 GenBank x68285 149737-37-1, GenBank 110338 150326-43-5, GenBank 119267  
 150510-74-0, GenBank z18859 150861-19-1, GenBank 115309 151658-42-3,  
 GenBank u03486 151973-86-3, GenBank d14497 152347-85-8, GenBank 119314  
 152371-82-9, GenBank 125444 152649-01-9, GenBank 119871 155117-74-1,  
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 164952-58-3, GenBank u20734 164952-76-5, GenBank u22314 165149-73-5,  
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 174128-16-6, GenBank u22377 175113-26-5, GenBank u50360 175196-96-0,  
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 176145-94-1, GenBank u49187 176348-12-2, GenBank u53445 177929-43-0,  
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- 180604-89-1, GenBank u53786 181828-95-5, GenBank s83362 182940-44-9, GenBank u73328 183819-07-0, GenBank d50640 183983-98-4, GenBank u79248 183983-99-5, GenBank u79249 183984-01-2, GenBank u79251 184342-40-3, GenBank u66468 184632-60-8, GenBank u77735 184941-12-6, GenBank ac000099 186445-92-1, GenBank ab000464 187859-73-0, GenBank u87269 188329-74-0, GenBank u60062 189023-52-7, GenBank y10375 189463-46-5, GenBank u96094 190920-95-7, GenBank af000234 202839-67-6, GenBank ab00548 226451-68-9, GenBank AI420129 252793-80-9, GenBank S69790 382730-07-6, GenBank X13589 384438-97-5, GenBank m57730 384440-08-8, GenBank j03600 384440-42-0, GenBank x07730 384442-87-9, GenBank x52541 384452-11-3, GenBank m31166 384463-34-7, GenBank m11313 384463-53-0, GenBank x06256 384463-75-6, GenBank j00219 384463-84-7, GenBank x04500 384463-99-4, GenBank x06182 384480-59-5, GenBank x59727 384488-43-1, GenBank 101087 384492-73-3, GenBank m95787 384497-75-0, GenBank x68277 384506-42-7, GenBank l10343 384515-94-0, GenBank x63741 384520-60-9, GenBank 105568 384527-97-3, GenBank s59049 384528-75-0, GenBank x72755 384536-34-9, GenBank 120971 384557-60-2, DNA (human X arrestin cDNA) 384581-28-6, GenBank z23115 384655-19-0, GenBank u37546 384655-55-4, GenBank u37518 384728-18-1, GenBank d49958 384735-80-2, GenBank u51096 384976-62-9, GenBank j03171 385172-72-5, GenBank d88152 389182-06-3, GenBank m27691 389182-22-3, GenBank j04076 389184-77-4, GenBank j03507 389192-44-3, GenBank x57809 389193-51-5, GenBank x57206 389195-33-9, GenBank x59131 389200-61-7, GenBank 113740 389310-50-3, GenBank u38480 389357-20-4, GenBank d86425 389406-78-4, GenBank u78722 389406-79-5, GenBank u72649 389415-01-4, GenBank u78798 390187-88-9, GenBank S57153 391523-44-7, GenBank m32011 391523-63-0, GenBank m58603 391524-76-8, GenBank m57710 391524-99-5, GenBank m16937 391525-11-4, GenBank x01057 391525-76-1, GenBank x15880 391527-32-5, GenBank y00787 391528-24-8, GenBank m24283 391528-57-7, GenBank m69043 391528-67-9, GenBank m81181 391529-34-3, GenBank M23178 391530-32-8, GenBank m62831 391532-21-1, GenBank m59465 391534-20-6, GenBank m92357 391535-10-7, GenBank m83221 391535-51-6, GenBank z11697 391536-35-9, GenBank 101406 391536-91-7, GenBank s76638 391540-52-6, GenBank d11428 391540-54-8, GenBank x70991 391544-82-4, GenBank d21267 391546-79-5, GenBank 107077 391547-30-1, GenBank X77744 391548-28-0, GenBank d15049 391548-59-7, GenBank z31695 391550-27-9, GenBank d31762 391551-76-1, GenBank z32765 391557-48-5, GenBank z35093 391558-60-4, GenBank u19261 391561-76-5, GenBank u19878 391758-90-0, GenBank 147345 391765-35-8, GenBank u37519 391766-17-9, GenBank x92814 391772-01-3, GenBank u31628 391777-17-6, GenBank u45878 391783-55-4, GenBank U49973 391783-87-2, GenBank u47054 391791-22-3, GenBank d79206 391806-64-7, GenBank u49957 391815-18-2, GenBank d87469 391818-98-7, GenBank d89077 391831-70-2, GenBank u70426 391831-79-1, GenBank u64675 391834-40-5, GenBank u89922 391838-61-2, GenBank u91616 391839-12-6, GenBank u53476 391847-57-7, GenBank u89995 392193-44-1, GenBank m83667 392193-49-6, GenBank x53800 392204-67-0, GenBank d16583 392215-20-2, GenBank x75042 398114-34-6, GenBank u59914 398425-27-9, GenBank m27492  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)  
 IT 9031-44-1, Kinase (phosphorylating)  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (inhibitors; human interleukin 18-binding proteins and antibodies and conjugates for treating IL-18-related inflammatory diseases)  
 IT 9004-74-4, Methoxypolyethylene glycol  
25322-68-3, Polyethylene glycol

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (human interleukin 18-binding proteins and antibodies  
 and conjugates for treating IL-18-related inflammatory  
 diseases)

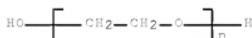
RN 9004-74-4 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -methyl- $\omega$ -hydroxy- (CA INDEX NAME)



RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 5 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:857632 HCPLUS Full-text

DOCUMENT NUMBER: 141:348838

TITLE: Bispecific monoclonal antibodies and  
 fragments binding to C3b-like or CR1  
 receptor for treating viral or bacterial infection

INVENTOR(S): Mohamed, Nehal; Spitalny, George L.; Casey, Leslie S.  
 PATENT ASSIGNEE(S): Elusys Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087759	A2	20041014	WO 2004-US9630	20040329 <--
WO 2004087759	A3	20041223		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004225941	A1	20041014	AU 2004-225941	20040329 <--
CA 2520389	A1	20041014	CA 2004-2520389	20040329 <--
US 20050031625	A1	20050210	US 2004-812636	20040329 <--

EP 1611155	A2 20060104	EP 2004-758562	20040329 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK			
JP 2007525446	T 20070906	JP 2006-509449	20040329 <--
PRIORITY APPLN. INFO.:		US 2003-458468P	P 20030328 <--
		WO 2004-US9630	W 20040329

ED Entered STN: 18 Oct 2004

AB The present invention provide a bispecific mol. comprising an antibody that binds a C3b-like receptor linked to one or more non-neutralizing antigen-binding antibodies or fragments thereof. The present invention also provides methods to identify non-neutralizing antibodies, and particularly, to identify enhancing antibodies. Methods of producing such bispecific mols. and their therapeutic and/or prophylactic uses are also provided by the present invention.

IC ICM C07K016-00

CC 15-3 (Immunochemistry)

Section cross-reference(s): 4

ST bispecific monoclonal antibody fragment CR1 receptor viral  
bacterial infection

IT Proteins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(A; bispecific monoclonal antibodies and fragments  
binding to C3b-like or CR1 receptor for treating viral or  
bacterial infection)

IT Receptors

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(C3b-like; bispecific monoclonal antibodies and fragments  
binding to C3b-like or CR1 receptor for treating viral or  
bacterial infection)

IT Toxins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(anthrax lethal factor; bispecific monoclonal antibodies and  
fragments binding to C3b-like or CR1 receptor for treating  
viral or bacterial infection)

IT Toxins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(anthrax protective antigen; bispecific monoclonal antibodies  
and fragments binding to C3b-like or CR1 receptor for  
treating viral or bacterial infection)

IT Spore

(anthrax; bispecific monoclonal antibodies and fragments  
binding to C3b-like or CR1 receptor for treating viral or  
bacterial infection)

IT Infection

(bacterial; bispecific monoclonal antibodies and fragments  
binding to C3b-like or CR1 receptor for treating viral or  
bacterial infection)

IT Animal cell

Animal virus

Animals

Bacillus anthracis

Circulation

Crosslinking agents

Eubacteria

Human

Infection

- Pathogen  
Staphylococcus aureus  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Polyoxalkylenes, biological studies  
 RL: BSU (Biological study, unclassified); MOA (Modifier or additive use);  
 BIOL (Biological study); USES (Uses)  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Antibodies and Immunoglobulines  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (bispecific; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (fragments; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (microbial; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Antibodies and Immunoglobulines  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (monoclonal; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Complement receptors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (type 1; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)
- IT Infection  
 (viral; bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or

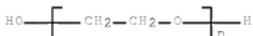
bacterial infection)

IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); MOA (Modifier or additive use);  
 BIOL (Biological study); USES (Uses)  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)

IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); MOA (Modifier or additive use);  
 BIOL (Biological study); USES (Uses)  
 (bispecific monoclonal antibodies and fragments  
 binding to C3b-like or CRI receptor for treating viral or  
 bacterial infection)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 6 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:780739 HCPLUS Full-text  
 DOCUMENT NUMBER: 141:276289  
 TITLE: Bispecific antibodies linked by  
 polymer and conjugated with therapeutic or  
 diagnostic agent for immunotherapy and immunodiagnosis  
 INVENTOR(S): Young, Stephen Peter  
 PATENT ASSIGNEE(S): The University of Birmingham, UK  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXKD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

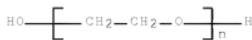
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004081051	A1	20040923	WO 2004-GB1026	20040311 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			GB 2003-5702	A 20030312 <--
ED Entered SIN: 24 Sep 2004				

AB The present invention discloses a bispecific antibody (BAb) comprising two antibodies, each of which has a binding specificity to a different epitope situated on the surface of a target structure. Each of said antibodies has a relatively low binding affinity for its resp. epitope. The BAbS produced according to the present invention have much lower affinity for cross-reactive

- non-target tissue due to the lower affinity of the MAbs used to produce them. These Babs still provide high avidity for target tissue due to the cumulative nature of the binding interactions.
- IC ICM C07K016-46  
ICS A61K051-10  
CC 15-3 (Immunochemistry)  
Section cross-reference(s): 1, 3, 8, 9, 63
- ST bispecific antibody fragment antigen epitope polymer  
linker therapeutic diagnostic
- IT Antibodies and Immunoglobulines  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(IgG; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Imaging agents  
(NMR contrast; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Cytotoxic agents  
(antimetabolites; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Affinity  
Alkylating agents, biological  
Animal cell  
Animal tissue  
Antibiotics  
Antitumor agents  
B cell (lymphocyte)  
Biomarkers  
Crosslinking agents  
Cytotoxic agents  
Diagnostic agents  
Drugs  
Fluorescent substances  
Hybridoma  
Linking agents  
Liposomes  
Luminescent substances  
Lymphocyte  
Multiple myeloma  
Organ, animal  
Phage display library  
Plasmids  
Retroviral vectors  
Surface plasmon resonance  
T cell (lymphocyte)  
(bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Antibodies and Immunoglobulines  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Polyoxalkylenes, biological studies

- RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Abrins  
 Antigens  
 Complement  
 Interferons  
 Interleukins  
Mycotoxins  
 Radionuclides, biological studies  
 Receptors  
Ricins  
Toxins  
 Tumor necrosis factors  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Polymers, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (bispecific; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fragments; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Drug delivery systems  
 (immunoconjugates; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Gene  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (knock-down or knock-in; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis)
- IT Drug delivery systems  
 (liposomes; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for

- immunotherapy and immunodiagnosis)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (monoclonal; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT Chloramines  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nitrogen mustards; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT Drug delivery systems  
 (prodrugs; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT Double stranded RNA  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (small interfering; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT Sesquiterpenes  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (trichothecane; bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT 51-21-8, 5-Fluorouracil 10043-66-0, Iodine-131, biological studies 11056-06-7, Bleomycin 13981-56-1, Fluorine-18, biological studies 14378-26-8, Rhenium-188, biological studies 15663-27-1, cis-Diamminodichloroplatinum(II) 15715-08-9, Iodine-123, biological studies 15757-86-5, Copper-67, biological studies 15758-35-7, Ruthenium-97, biological studies 15765-38-5, Bromine-76, biological studies  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies linked by polymer and conjugated with therapeutic or diagnostic agent for immunotherapy and immunodiagnosis))
- RN 25322-68-3 HCPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 7 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:368859 HCPLUS Full-text  
 DOCUMENT NUMBER: 140:368736  
 TITLE: Crosslinked compounds and methods of making and using thereof  
 INVENTOR(S): Prestwich, Glenn D.; Shu, Xiao Zheng; Luo, Yi; Kirker, Kelly R.; Liu, Yanchun  
 PATENT ASSIGNEE(S): University of Utah Research Foundation, USA  
 SOURCE: PCT Int. Appl., 105 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037164	A2	20040506	WO 2003-US15519	20030515 <--
WO 2004037164	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KE, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2489712	A1	20040506	CA 2003-2489712	20030515 <--
AU 2003299509	A1	20040513	AU 2003-299509	20030515 <--
EP 1539799	A2	20050615	EP 2003-799796	20030515 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20050176620	A1	20050811	US 2005-519173	20050419 <--
PRIORITY APPLN. INFO.:			US 2002-390504P	P 20020621 <--
			WO 2003-US15519	W 20030515 <--

OTHER SOURCE(S): MARPAT 140:368736

ED Entered STN: 06 May 2004

AB Described herein are crosslinked compds. useful in numerous treatments. Described herein are methods of making crosslinked compds. via (1) the oxidative coupling of two or more thiol compds. or (2) by the reaction between at least one thiol compound with at least one thiol-reactive compound. In one aspect described herein is a method for preparing a compound, wherein the method includes reacting a first thiolated compound containing a macromol. and a linker with a second thiolated compound having at least one SH group in the presence of an oxidant wherein the first thiolated compound and second thiolated compound are the same or different compds. In one aspect, the macromol. can be a pharmaceutically-acceptable compound. In one aspect, the macromol. can be polysaccharide such as hyaluronan.

ICM A61K

CC 1-12 (Pharmacology)  
 Section cross-reference(s): 33, 34, 63

IT Aromatic compounds  
 Polyamides, biological studies  
 Polyesters, biological studies  
 Polyethers, biological studies  
 Polyolefins  
 Polythioethers  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates, linkers; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

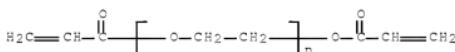
IT Drugs  
(conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Collagens, biological studies  
 Decorins  
 Elastins  
 Fibronectins  
 Gelatins, biological studies  
 Glycolipids  
 Glycoproteins  
 Laminins  
 Lipids, biological studies  
 Macromolecular compounds  
 Nucleic acids  
 Oligonucleotides  
Peptides, biological studies  
 Polymers, biological studies  
Polyoxalkylenes, biological studies  
 Polysaccharides, biological studies  
 Proteins  
 Thiols, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

IT Anabolic agents  
 Analgesics  
 Anti-infective agents  
 Anti-inflammatory agents  
 Antitumor agents  
Drug delivery systems  
 Fluorescent indicators  
 Human  
 Hydrogels  
 Infection  
 Inflammation  
 Isotope indicators  
Linking agents  
 Neoplasm  
 Pain  
 Spin labels  
 Wound  
 Wound healing  
 Wound healing promoters

- (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Polyoxyalkylenes, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Proteins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (extracellular matrix-associated, conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Drug delivery systems  
 (hydrogels; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Imines  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyimines, conjugates, linkers; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Glycosaminoglycans, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (sulfated, conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Radionuclides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (with chelating agents, conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT Chelating agents  
 (with radionuclides, conjugates; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 26570-49-0DP, conjugates with hyaluronic acid and thiadipropionic hydrazides 685143-17-3P 685143-18-4P 685143-19-5DP, conjugates with hyaluronic acid acrylates  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 50-07-7D, Mitomycin C, conjugates 9000-11-7D,  
 Carboxymethylcellulose, conjugates 9000-69-5D, Pectin,  
conjugates 9003-01-4D, Polyacrylic acid, conjugates 9003-16-1D, Polyfumaric acid, conjugates 9004-61-9D,  
 Hyaluronan, conjugates 9005-32-7D, Alginic acid,  
conjugates 9005-49-6D, Heparin, conjugates 9007-28-7D, Chondroitin sulfate, conjugates 9050-30-0D,

- Heparan sulfate, conjugates 9067-32-7D, Hyaluronic acid sodium salt, conjugates 24967-94-0D, Dermatan sulfate, conjugates 24991-23-9D, conjugates 25322-68-3D, PEG, conjugates 25513-46-6D, Polyglutamic acid, conjugates 25608-40-6D, Polyaspartic acid, conjugates 26063-13-8D, Polyaspartic acid, conjugates 36655-86-4D, Polyglucuronic acid, conjugates 70226-44-7D, Heparan, conjugates 75634-40-1D, Dermatan, conjugates 132517-61-4D, conjugates  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 50-07-7, Mitomycin C 814-68-6, Acryloyl chloride 9004-61-9, Hyaluronan 24991-53-5 25322-68-3, PEG 50906-77-9 52821-72-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 25552-47-5P 26570-48-9P 160556-48-9P 476197-24-7DP, mitromycin acrylate conjugate derivs., polymers, adducts with polyethylene glycol acrylate 476197-24-7P 476197-25-8P 685143-16-2P 685143-19-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 50906-77-9D, conjugates 52821-72-4D,  
conjugates  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (linker; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- IT 26570-48-9DP, conjugates with hyaluronic acid and thiadipropionic hydrazides  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)
- RN 26570-48-9 HCAPLUS
- CN Poly(oxy-1,2-ethanediyil),  $\alpha$ -(1-oxo-2-propen-1-yl)- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)

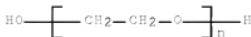


- IT 25322-68-3D, PEG, conjugates  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



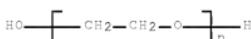
IT 25322-68-3, PEG

RL: RCT (Reactant); RACT (Reactant or reagent)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



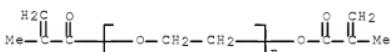
IT 25852-47-5P 26570-48-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

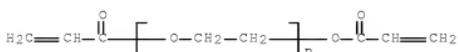
RN 25852-47-5 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -(2-methyl-1-oxo-2-propen-1-yl)- $\omega$ -[(2-methyl-1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)



RN 26570-48-9 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -(1-oxo-2-propen-1-yl)- $\omega$ -[(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)



IT 52821-72-4D, conjugates

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(linker; crosslinked compds. containing macromols. and methods of making them via oxidative coupling of thiol compds. and thiol-reactive compds. and their use as pharmaceutical agents)

RN 52821-72-4 HCAPLUS

CN Butanoic acid, 4,4'-dithiobis-, dihydrazide (9CI) (CA INDEX NAME)



L147 ANSWER 8 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:267260 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:297533  
 TITLE: Peptides and related molecules that modulate nerve growth factor activity  
 INVENTOR(S): Boone, Thomas C.; Wild, Kenneth D., Jr.; Sitney, Karen C.; Min, Hosung; Kimmel, Bruce  
 PATENT ASSIGNEE(S): Amgen Inc., USA  
 SOURCE: PCT Int. Appl., 267 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026329	A1	20040401	WO 2003-US29866	20030919 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20040121959	A1	20040624	US 2003-666480	20030918 <--
US 6919426	B2	20050719		
CA 2497982	A1	20040401	CA 2003-2497982	20030919 <--
AU 2003275137	A1	20040408	AU 2003-275137	20030919 <--
AU 2003275137	B2	20071213		
EP 1545581	A1	20050629	EP 2003-759405	20030919 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505255	T	20060216	JP 2004-538415	20030919 <--
MX 2005PA02869	A	20050527	MX 2005-PA2869	20050315 <--
US 20050222035	A1	20051006	US 2005-127702	20050511 <--
PRIORITY APPLN. INFO.:			US 2002-412524P	P 20020919 <--
			US 2003-666480	A 20030918 <--
			WO 2003-US29866	W 20030919 <--

OTHER SOURCE(S): MARPAT 140:297533

ED Entered STN: 01 Apr 2004  
 AB The present invention relates to certain biol. active peptides and polypeptides which can be used as therapeutics or prophylactics against diseases or disorders linked to nerve growth factor (NGF) as the causative agent. In one aspect of the present invention, pharmacol. active polypeptides comprising peptides linked to one or more Fc domains are provided.  
 ICM A61K038-10  
 ICS A61K038-16; C07H021-04; C07K007-08; C07K014-00  
 CC 1-11 (Pharmacology)  
 ST peptide analog nerve growth factor modulator  
 IT Antibodies and Immunoglobulins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Fc domain, conjugates with peptides;  
peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Antibodies and Immunoglobulins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (IgG1, Fc domain, conjugates with peptides;  
peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Pain  
 (acute; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Allergy  
 (allergic dermatitis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Allergy  
 Inflammation  
 Nose, disease  
 (allergic rhinitis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Dermatitis  
 (allergic, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Pain  
 Skin, disease  
 (allodynia; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Leg  
 (amputation, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)  
 IT Inflammation  
 (carditis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with

- pain)
- IT Drug delivery systems  
 (carriers; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
 Pain  
 (causalgia; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Eukaryota  
 (cell, peptide-encoding vector expression in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Inflammation  
 (chronic, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Headache  
 (cluster; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Inflammation  
 Intestine, disease  
 (colitis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Polyoxyalkylenes, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates with peptides; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Peptides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, with Fc domains and linkers; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Lipids, biological studies  
Oligosaccharides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, with peptides; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Peptides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (cyclic; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as

- antibody Fc domains for treatment of diseases associated with pain)
- IT Bladder, disease  
Inflammation  
(cystitis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
(deafferentation syndrome, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
(demyelination, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
(diabetic neuropathy, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Drug delivery systems  
(diluents; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Epithelium  
(disease, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Viscera  
(disease, pain; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Gastrointestinal motility  
(disorder, dysmotility, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Ulcer  
(duodenal, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Intestine, disease  
(duodenum, ulcer, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Ulcer  
(gastric, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Bladder, disease  
(hyperactive, pain in; peptides and related mols. that

- modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Pain  
 (hyperalgesia; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Human herpesvirus  
 (infection, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Intestine, disease  
 (inflammatory, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Headache  
 (migraine; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Respiratory system  
 Urogenital system  
 (micturition disorder, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Heart, disease  
 Inflammation  
 (myocarditis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
 Pain  
 (neuralgia, from herpes virus infection, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Inflammation  
 Nerve, disease  
 (neuritis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Nerve, disease  
 (neuropathy, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Eye, disease  
 Inflammation  
 (ophthalmitis, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Toxins  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

- (pain from; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT AIDS (disease)  
 Abscess  
 Alcoholism  
 Arthritis  
 Bronchi, disease  
 Burn  
 Connective tissue, disease  
 Dermatitis  
 Diabetes mellitus  
 Digestive tract, disease  
 Drug toxicity  
 Inflammation  
 Lupus erythematosus  
 Myositis  
 Neoplasm  
 Osteoarthritis  
 Pruritus  
 Psoriasis  
 Rheumatic diseases  
 Sunburn  
 Surgery  
 Tooth  
 Vitiligo  
 (pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Cell  
 Escherichia coli  
 Prokaryota  
 (peptide-encoding vector expression in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Genetic vectors  
 (peptide-encoding; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Polynucleotides  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (peptide-encoding; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)
- IT Analgesics  
 Antimigraine agents  
 Asthma  
Drug delivery systems  
 Headache  
 Human  
 Molecular cloning  
 Pain  
Peptide library  
 Phage display library  
 (peptides and related mols. that modulate nerve growth factor

activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Peptides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Inflammation  
 Nose, disease  
 (rhinitis, vasomotor, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Brain, disease  
 (stroke, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Headache  
 (tension; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Injury  
 (trauma, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Nerve, disease  
 Pain  
 (trigeminal neuralgia; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Stomach, disease  
 (ulcer, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Infection  
 (viral, herpes virus, pain in; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Disease, animal  
 (visceral pain; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Pain  
 (visceral; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

IT Glycoconjugates  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (with peptides; peptides and related mols. that modulate nerve growth factor activity linked to vehicles such

as antibody Fc domains for treatment of diseases associated with pain)

IT 9061-61-4, Nerve growth factor  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
peptides and related mols. that modulate nerve growth factor activity linked to vehicles such as antibody Fc domains for treatment of diseases associated with pain)

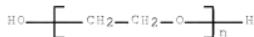
IT 57-88-5D, Cholesterol, conjugates with peptides  
 7093-67-6D, conjugates with peptides and Fc domains  
 18861-82-0D, conjugates with peptides and Fc domains  
 25322-68-3D, Polyethylene glycol,  
conjugates with peptides 676329-46-7D, linker-  
peptide-Fc domain conjugates 676329-48-9D,  
linker-peptide-Fc domain conjugates  
 676329-50-3D, linker-peptide-Fc domain  
conjugates 676329-51-4D, linker-peptide-Fc  
 domain conjugates 676329-53-6D, linker-  
peptide-Fc domain conjugates 676329-54-7D,  
linker-peptide-Fc domain conjugates  
 676329-55-8D, linker-peptide-Fc domain  
conjugates 676329-56-9 676329-56-9D, linker-  
peptide-Fc domain conjugates 676329-58-1D,  
linker-peptide-Fc domain conjugates  
 676329-60-5 676329-60-5D, linker-peptide-Fc domain  
conjugates 676329-63-8D, linker-peptide-Fc  
 domain conjugates 676329-65-0D, linker-  
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linker-peptide-Fc domain conjugates  
 676329-69-4D, linker-peptide-Fc domain  
conjugates 676329-71-8D, linker-peptide-Fc  
 domain conjugates 676329-73-0D, linker-  
peptide-Fc domain conjugates 676329-75-2D,  
linker-peptide-Fc domain conjugates  
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conjugates 676329-77-4D, linker-peptide-Fc  
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conjugates 676329-81-0 676329-81-0D, linker-  
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conjugates 676329-83-2D, linker-peptide-Fc  
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conjugates 676329-95-6D, linker-peptide-Fc  
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peptide-Fc domain conjugates 676329-97-8D,

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linker-peptide-Fc domain conjugates  
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conjugates 676330-75-9D, linker-peptide-Fc  
domain conjugates 676330-76-0 676330-76-0D, linker-  
peptide-Fc domain conjugates 676330-77-1  
676330-77-1D, linker-peptide-Fc domain  
conjugates 676330-78-2 676330-78-2D, linker-  
peptide-Fc domain conjugates 676330-79-3  
676330-79-3D, linker-peptide-Fc domain  
conjugates 676330-80-6 676330-80-6D, linker-  
peptide-Fc domain conjugates 676330-81-7D,  
linker-peptide-Fc domain conjugates  
676330-82-8 676330-82-8D, linker-peptide-Fc domain  
conjugates 676330-83-9 676330-83-9D, linker-  
peptide-Fc domain conjugates 676330-84-0D,  
linker-peptide-Fc domain conjugates  
676330-85-1 676330-85-1D, linker-peptide-Fc domain  
conjugates 676330-86-2 676330-86-2D, linker-  
peptides-Fc domain conjugates 676330-87-3  
676330-87-3D, linker-peptide-Fc domain  
conjugates 676330-88-4D, linker-peptide-Fc  
domain conjugates 676330-89-5D, linker-  
peptide-Fc domain conjugates 676330-90-8D,  
linker-peptide-Fc domain conjugates  
676330-91-9D, linker-peptide-Fc domain  
conjugates 676330-92-0 676330-92-0D, linker-  
peptide-Fc domain conjugates 676330-93-1  
676330-93-1D, linker-peptide-Fc domain  
conjugates 676330-94-2D, linker-peptide-Fc  
domain conjugates 676330-95-3D, linker-  
peptide-Fc domain conjugates 676330-96-4D,  
linker-peptide-Fc domain conjugates  
676330-97-5 676330-97-5D, linker-peptide-Fc domain  
conjugates 676330-98-6D, linker-peptide-Fc  
domain conjugates 676330-99-7D, linker-  
peptide-Fc domain conjugates 676331-00-3D,  
linker-peptide-Fc domain conjugates  
676331-01-4D, linker-peptide-Fc domain  
conjugates 676331-02-5D, linker-peptide-Fc  
domain conjugates 676331-03-6D, linker-  
peptide-Fc domain conjugates 676331-04-7D,  
linker-peptide-Fc domain conjugates  
676331-05-8 676331-05-8D, linker-peptide-Fc domain  
conjugates 676331-06-9D, linker-peptide-Fc  
domain conjugates 676331-07-0D, linker-  
peptide-Fc domain conjugates 676331-08-1D,  
linker-peptide-Fc domain conjugates  
676331-10-5D, linker-peptide-Fc domain  
conjugates 676331-11-6D, linker-peptide-Fc  
domain conjugates 676331-12-7D, linker-  
peptides-Fc domain conjugates 676331-13-8  
676331-13-8D, linker-peptide-Fc domain  
conjugates 676331-14-9D, linker-peptide-Fc  
domain conjugates 676331-15-0D, linker-  
peptide-Fc domain conjugates 676331-16-1D,  
linker-peptide-Fc domain conjugates  
676331-17-2D, linker-peptide-Fc domain  
conjugates 676331-18-3D, linker-peptide-Fc  
domain conjugates 676331-19-4 676331-19-4D, linker-  
peptide-Fc domain conjugates 676331-20-7  
676331-20-7D, linker-peptide-Fc domain  
conjugates 676331-21-8 676331-21-8D, linker-

	<u>peptide-Fc domain conjugates</u>	676331-22-9
	676331-22-9D, <u>linker-peptide-Fc domain conjugates</u>	676331-22-9D, <u>linker-peptide-Fc domain conjugates</u>
	676331-30-1D, <u>linker-peptide-Fc domain conjugates</u>	676331-30-1D, <u>linker-peptide-Fc domain conjugates</u>
	676331-31-2D, <u>linker-peptide-Fc domain conjugates</u>	676331-31-2D, <u>linker-peptide-Fc domain conjugates</u>
	676331-32-3D, <u>linker-peptide-Fc domain conjugates</u>	676331-32-3D, <u>linker-peptide-Fc domain conjugates</u>
	676331-33-4D, <u>conjugates with peptides</u>	676331-33-4D, <u>conjugates with peptides</u>
	676331-33-6	676331-33-6
RL:	PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)	( <u>peptides</u> and related mols. that modulate nerve growth factor activity linked to vehicles such as <u>antibody Fc domains</u> for treatment of diseases associated with pain)
IT	637-84-3	676381-89-8
IT	676381-90-1	676381-90-1
RL:	PRP (Properties)	(unclaimed nucleotide sequence; <u>peptides</u> and related mols. that modulate nerve growth factor activity)
IT	266993-98-0	266993-99-1
	266994-00-7	371161-48-7
	676330-20-4	676330-21-5
	676330-22-6	676330-23-7
	676330-24-8	676330-25-9
	676330-26-0	676330-27-1
	676330-28-2	676330-29-3
	676330-30-6	676330-31-7
	676330-32-8	676330-33-9
	676330-34-0	676330-35-1
	676330-36-2	676330-37-3
	676330-38-4	676330-39-5
	676330-40-8	676330-41-9
	676330-42-0	676330-43-1
	676330-44-2	676330-45-3
	676330-46-4	676330-47-5
	676380-80-6	676380-81-7
	676380-82-8	676380-83-9
	676380-84-0	676380-85-1
	676380-86-2	676380-87-3
	676380-88-4	676380-89-5
	676380-90-8	676380-91-9
	676380-92-0	676380-93-1
	676380-94-2	676380-95-3
	676380-96-4	676380-97-5
	676380-98-6	676380-99-7
	676381-00-3	676381-01-4
	676381-02-5	676381-03-6
	676381-04-7	676381-05-8
	676381-06-9	676381-07-0
	676381-09-2	676381-10-5
	676381-11-6	676381-12-7
	676381-13-8	676381-14-9
	676381-15-0	676381-16-1
	676381-17-2	676381-18-3
	676381-19-4	676381-20-7
	676381-21-8	676381-22-9
	676381-23-0	676381-24-1
	676381-25-2	676381-26-3
	676381-27-4	
RL:	PRP (Properties)	(unclaimed protein sequence; <u>peptides</u> and related mols. that modulate nerve growth factor activity)
IT	676381-28-5	676381-29-6
	676381-30-9	676381-31-0
	676381-32-1	676381-33-2
	676381-34-3	676381-35-4
	676381-36-5	676381-37-6
	676381-38-7	676381-39-8
	676381-40-1	676381-41-2
	676381-42-3	676381-43-4
	676381-44-5	676381-45-6
	676381-46-7	676381-47-8
	676381-48-9	676381-49-0
	676381-50-3	676381-51-4
	676381-52-5	676381-53-6
	676381-54-7	676381-55-8
	676381-56-9	676381-57-0
	676381-58-1	676381-59-2
	676381-60-5	676381-61-6
	676381-62-7	676381-63-8
	676381-64-9	676381-65-0
	676381-66-1	676381-67-2
	676381-68-3	676381-69-4
	676381-70-7	676381-71-8
	676381-72-9	676381-73-0
	676381-74-1	676381-75-2
	676381-76-3	676381-77-4
	676381-78-5	676381-79-6
	676381-80-9	676381-81-0
	676381-82-1	676381-83-2
	676381-84-3	676381-85-4
	676381-86-5	676381-87-6
	676381-88-7	
RL:	PRP (Properties)	(unclaimed sequence; <u>peptides</u> and related mols. that modulate nerve growth factor activity)
IT	25322-68-3D, <u>Polyethylene glycol conjugates with peptides</u>	25322-68-3D, <u>Polyethylene glycol conjugates with peptides</u>
RL:	PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)	( <u>peptides</u> and related mols. that modulate nerve growth factor activity linked to vehicles such as <u>antibody Fc domains</u> for treatment of diseases associated with pain)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 9 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:252616 HCPLUS Full-text

DOCUMENT NUMBER: 140:269533

TITLE: Bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers

for treating infection or autoimmune disease

INVENTOR(S): Mohamed, Nehal; Casey, Leslie; Porter, James P.; Wang, Xiaoliang; Sesay, Mustarr; Lee, Lihsyng Stanford

PATENT ASSIGNEE(S): Elusys Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 95 pp.

DOCUMENT TYPE: CODEN: PIXHD2

LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004024889	A2	20040325	WO 2003-US29059	20030916 <--
WO 2004024889	A3	20040729		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KB, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
CA 2499075	A1	20040325	CA 2003-2499075	20030916 <--
AU 2003270686	A1	20040430	AU 2003-270686	20030916 <--
EP 1539811	A2	20050615	EP 2003-752394	20030916 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005539067	T	20051222	JP 2004-536556	20030916 <--
US 20060153839	A1	20060713	US 2005-527936	20050316 <--
PRIORITY APPLN. INFO.:			US 2002-411731P	P 20020916 <--
			WO 2003-US29059	W 20030916 <--

OTHER SOURCE(S): MARPAT 140:269533

ED Entered SIN: 26 Mar 2004

AB The invention relates to a bispecific mol. comprising a first recognition binding moiety that binds a C3b-like receptor cross-linked using a poly-(ethylene glycol) ('PEG') linker with one or more second recognition binding moieties that bind a mol. The invention also relates to methods of producing such bispecific mols. and to therapeutic uses of such bispecific mols.

IC ICM C12N  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 63  
 ST bispecific antibody C3b like receptor antigen infection  
 autoimmune disease  
 IT Receptors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (C3b-like; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG2a; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (IgG; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Animal virus  
 Eubacteria  
 (antigen; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Antibodies and Immunoglobulines  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (autoantibodies; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (autoantigens; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Infection  
 (bacterial; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT Autoimmune disease  
 Bacillus anthracis  
 Circulation  
 Crosslinking agents  
 Drugs  
 Epitopes  
 Functional groups  
 Human

Immunotherapy  
 Infection  
Linking agents  
 Mammalia  
 Mus  
 Pathogen  
 Primates  
 Rodentia  
 Size-exclusion chromatography  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Aldehydes, biological studies  
Polyoxalkylenes, biological studies  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Nucleic acids  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Oligosaccharides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Peptides, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Proteins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

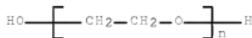
IT Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

IT Molecules  
 (bispecific; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)

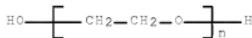
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (bispecific; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Drug delivery systems  
 (carriers; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (chimeric; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Medical goods  
 (containers; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fragments; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (heavy chain; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (humanized; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Polyoxalkylenes, biological studies  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (hydrazide, hydrazine and aldehyde derivs.; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Reagents  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

- (hydrazine or aldehyde-modifying; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (light chain; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Containers  
 (medical; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (protective; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Organic compounds, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (small; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Substitution reaction  
 (thiolation; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Complement receptors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (type 1; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT Infection  
 (viral; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)
- IT 25322-68-3, Polyethylene glycol  
 25322-68-3d, PEG, hydrazide, hydrazine and aldehyde derivs. 60444-78-2, Succinimidyl 4-formylbenzoate 68181-17-9, SPDP 76931-93-6, Succinimidyl acetylthioacetate 174459-58-6 357277-60-2

362522-50-7, Succinimidyl 6-hydraxinonicotinate acetone hydrazone  
 674369-01-8 674369-02-9 674369-03-0  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT 302-01-2, Hydrazine, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (modification reagent; bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 IT 25322-68-3, Polyethylene glycol  
 25322-68-3d, PEG, hydrazide, hydrazine and aldehyde derivs.  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bispecific antibodies specific to C3b-like receptor and antigen or autoantigen coupled by polyethylene glycol linkers for treating infection or autoimmune disease)  
 RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 10 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:60253 HCPLUS Full-text  
 DOCUMENT NUMBER: 140:127195  
 TITLE: Antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer  
 INVENTOR(S): Thorpe, Philip E.; Soares, Melina M.; Huang, Xianming; He, Jin; Ran, Sophia  
 PATENT ASSIGNEE(S): Board of Regents the University of Texas System, USA  
 SOURCE: PCT Int. Appl., 378 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 17  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004006847	A2	20040122	WO 2003-US21925	20030715 <--
WO 2004006847	A3	20050407		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
CA 2491310	A1	20040122	CA 2003-2491310	20030715 <--
AU 200324/869	A1	20040202	AU 2003-24/869	20030715 <--
US 200401/5378	A1	20040909	US 2003-620850	20030715 <--
EP 153/146	A2	20050608	EP 2003-764600	20030715 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1668644	A	20050914	CN 2003-816751	20030715 <--
JP 200553/267	T	20051208	JP 2004-521771	20030715 <--
BR 2003012692	A	20070626	BR 2003-12692	20030715 <--
MX 2005PA00652	A	20050819	MX 2005-PA652	20050114 <--
PRIORITY APPLN. INFO.:			US 2002-396263P	P 20020715 <--
			WO 2003-US21925	W 20030715 <--

ED Entered STN: 26 Jan 2004

AB Disclosed are surprising discoveries concerning the role of anionic phospholipids and aminophospholipids in tumor vasculature and in viral entry and spread, and compns. and methods for utilizing these findings in the treatment of cancer and viral infections. Also disclosed are advantageous antibody, immunoconjugate and duramycin-based compns. and combinations that bind and inhibit anionic phospholipids and aminophospholipids, for use in the safe and effective treatment of cancer, viral infections and related diseases.

IC ICM A61K

CC 15-3 (Immunochemistry)

Section cross-reference(s): 1, 8, 63

ST antibody anionic phospholipid aminophospholipid immunoconjugate  
duramycin cancer viral infection

IT Ricins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(A; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT CD antigens

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CD106; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(IgG1; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

- DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (IgG3; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins**
- RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (IgG; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins**
- RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (IgM; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Exotoxins**
- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (Pseudomonas; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Annexins**
- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (V; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Cell adhesion molecules**
- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (VCAM-1 (vascular cell adhesion mol. 1); antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Phospholipids, biological studies**
- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (acidic; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Phospholipids, biological studies**
- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
- (amine-containing; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Functional groups**
- (ammonio group; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins**
- RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(anti-idiotypic; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Mitosis

(anti-tumor agent; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Adenoviridae

Affinity

Alkylating agents, biological

Alphavirus

Amino group

Angiogenesis inhibitors

Animals

Anti-AIDS agents

Antibiotics

Antitumor agents

Antiviral agents

Arenaviruses

Arthritis

Atherosclerosis

Bunyavirus

Calicivirus

Carboxyl group

Chemotherapy

Coagulants

Color formers

Coronavirus

Crimean-Congo hemorrhagic fever virus

Cytomegalovirus

Cytotoxic agents

DNA sequences

Deltavirus

Dengue virus

Diagnostic agents

Ebola virus

Filovirus

Flavivirus

Genetic vectors

Graves' disease

Guanarito virus

Hantavirus

Hendra virus

Hepadnaviridae

Hepatitis A virus

Hepatitis B virus

Hepatitis C virus

Hepatitis E virus

Hepatitis delta virus

Herpesviridae

Human

Human coronavirus

Human herpesvirus 2

Human herpesvirus 3

Human herpesvirus 4

Human immunodeficiency virus

Human papillomavirus

Human parainfluenza virus  
 Hyperthyroidism  
 Imaging agents  
 Immunoradiotherapy  
 Immunotherapy  
 Influenza A virus  
 Influenza B virus  
 Influenza C virus  
 Junin virus  
 Labels  
 Lassa virus  
 Lymphocytic choriomeningitis virus  
 Machupo virus  
 Marburg virus  
 Measles virus  
 Molecular cloning  
 NMR (nuclear magnetic resonance)  
 Nipah virus  
 Orthomyxovirus  
 Papovaviridae  
 Paramyxovirus  
 Phosphate group  
 Pichinde virus  
 Picornaviridae  
 Poxviridae  
 Protein sequences  
 Protein sequences  
 Psoriasis  
 Radiotherapy  
 Respiratory syncytial virus  
 Retroviridae  
 Rheumatoid arthritis  
 Rift Valley fever virus  
 Rotavirus  
 Rous sarcoma virus  
 Sabia virus  
 Semliki Forest virus  
 Tick-borne encephalitis virus  
 Togaviridae  
 Vaccinia virus  
 Variola virus  
 Venezuelan equine encephalitis virus  
 West Nile virus  
 Western equine encephalitis virus  
 X-ray  
 Yellow fever virus  
 cDNA sequences  
     (antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)  
 IT   Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
     (antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)  
 IT   Albumins, biological studies  
 Amino acids, biological studies  
     Antibodies and Immunoglobulins

Carbohydrates, biological studies  
 Cardiolipins  
 Enzymes, biological studies  
 Fusion proteins (chimeric proteins)  
Oligosaccharides, biological studies  
Peptides, biological studies  
 Phosphatidic acids  
 Phosphatidylethanolamines, biological studies  
 Phosphatidylglycerols  
 Phosphatidylinositols  
 Phosphatidylserines  
 Polysaccharides, biological studies  
 Proteins  
 Radionuclides, biological studies  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Anthracyclines  
 Cytokines  
 Ribosome-inactivating proteins  
 Steroids, biological studies  
Toxins  
 Tumor necrosis factors  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Cytotoxic agents  
 (antimetabolites; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT DNA replication  
 (antitumor agent; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Health products  
 (biologics; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Drug delivery systems  
 (carriers; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (chimeric; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Linking agents  
 (cleavable; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Avidins  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Polyoxyalkylenes, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Eye, disease  
 (diabetic retinopathy; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Toxins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (diphtheria; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Blood vessel  
 (endothelium; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Pseudomonas  
 (exotoxin; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fragments; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (heavy chain, variable; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Blood vessel, neoplasm  
 (hemangioma; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated

- with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (humanized; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Drug delivery systems  
 (immunoconjugates; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Drug delivery systems  
 (immunotoxins; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Apoptosis  
 (inducers; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Tubulins  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (inhibiting drugs; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Angiogenesis  
 (inhibition; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (light chain, variable; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Drug delivery systems  
 (liposomes; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Eye, disease  
 (macula, degeneration; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Eye, disease  
 (macula, senile degeneration; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL

- (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; antibodies specifically bind to  
 anionic phospholipids and/or aminophospholipids conjugated  
 with duramycin peptide for treating viral infections and  
 cancer)
- IT Glaucoma (disease)  
 (neovascular; antibodies specifically bind to  
 anionic phospholipids and/or aminophospholipids conjugated  
 with duramycin peptide for treating viral infections and  
 cancer)
- IT Drug delivery systems  
 (parenterals; antibodies specifically bind to  
 anionic phospholipids and/or aminophospholipids conjugated  
 with duramycin peptide for treating viral infections and  
 cancer)
- IT Hydroxyl group  
 (phenolic; antibodies specifically bind to anionic  
 phospholipids and/or aminophospholipids conjugated with  
 duramycin peptide for treating viral infections and cancer)
- IT Alcohols, biological studies  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polymers; antibodies specifically bind to anionic  
 phospholipids and/or aminophospholipids conjugated with  
 duramycin peptide for treating viral infections and cancer)
- IT Drug delivery systems  
 (prodrugs; antibodies specifically bind to anionic  
 phospholipids and/or aminophospholipids conjugated with  
 duramycin peptide for treating viral infections and cancer)
- IT Serratia  
 (protease; antibodies specifically bind to anionic  
 phospholipids and/or aminophospholipids conjugated with  
 duramycin peptide for treating viral infections and cancer)
- IT DNA  
 Proteins  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (recombinant; antibodies specifically bind to  
 anionic phospholipids and/or aminophospholipids conjugated  
 with duramycin peptide for treating viral infections and  
 cancer)
- IT Chromosome  
 (segregation; antitumor agent; antibodies specifically  
 bind to anionic phospholipids and/or aminophospholipids  
 conjugated with duramycin peptide for treating viral  
 infections and cancer)
- IT Functional groups  
 (sulfate; antibodies specifically bind to anionic  
 phospholipids and/or aminophospholipids conjugated with  
 duramycin peptide for treating viral infections and cancer)
- IT Functional groups  
 (sulfonate group; antibodies specifically bind to  
 anionic phospholipids and/or aminophospholipids conjugated  
 with duramycin peptide for treating viral infections and  
 cancer)
- IT Embryophyta  
 Eubacteria  
 Fungi  
 Plants  
 (toxin; antibodies specifically bind to

- anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Tumor markers  
 (tumor vessel; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Imaging  
 (tumor; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Endothelium  
 (vascular; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Alkaloids, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vinca; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Infection  
 (viral; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT Interferons  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 ( $\gamma$ ; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT 9001-92-7D, Protease, conjugates  
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Serratia; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT 650663-91-5  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT 650591-59-6DP, conjugates  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)
- IT 58-85-5D, Biotin, conjugates 9001-67-6D, Neuraminidase, conjugates 9001-78-9D, Alkaline phosphatase, conjugates 9001-99-4D, Ribonuclease, conjugates 9004-08-4D, Cathepsin, conjugates 9014-01-1D, Subtilisin, conjugates 9014-06-2D, Penicillin amidase, conjugates 9016-17-5D, Arylsulfatase, conjugates 9025-05-2D, Cytosine deaminase, conjugates 9031-11-2D,  $\beta$ -Galactosidase, conjugates 9031-98-5D, Carboxypeptidase, conjugates 9073-60-3D,

$\beta$ -Lactamase, conjugates 9073-78-3D, Thermolysin, conjugates 9077-67-2D, conjugates 10043-66-0D,  
 Iodine-131, conjugates, biological studies 10098-91-6D,  
 Yttrium-90, conjugates, biological studies 13981-51-6D,  
 Mercury-197, conjugates, biological studies 13982-78-0D,  
 Mercury-203, conjugates, biological studies 14119-09-6D,  
 Gallium-67, conjugates, biological studies 14158-31-7D,  
 Iodine-125, conjugates, biological studies 14280-50-3D, Lead  
 ion(2+), conjugates, biological studies 14378-26-8D,  
 Rhenium-188, conjugates, biological studies 14701-22-5D,  
 Nickel (II), conjugates, biological studies 14885-78-0D,  
 Indium-113, conjugates, biological studies 14913-52-1D,  
 Neodymium ion(3+), conjugates, biological studies 14998-63-1D,  
 Rhenium-186, conjugates, biological studies 15121-26-3D,  
 Vanadium ion(2+), conjugates, biological studies 15158-11-9D,  
 Copper (II), conjugates, biological studies 15438-31-0D,  
conjugates, biological studies 15715-08-9D, Iodine-123,  
conjugates, biological studies 15750-15-9D, Indium-111,  
conjugates, biological studies 15757-14-9D, Gallium-68,  
conjugates, biological studies 15757-86-5D, Copper-67,  
conjugates, biological studies 16065-83-1D, Chromium (III),  
conjugates, biological studies 16065-91-1D, Gold (III),  
conjugates, biological studies 16096-89-2D, Lanthanum (III),  
conjugates, biological studies 16397-91-4D, Manganese (II),  
conjugates, biological studies 18472-30-5D, Erbium ion(3+),  
conjugates, biological studies 18923-27-8D, Ytterbium ion(3+),  
conjugates, biological studies 20074-52-6D, conjugates,  
biological studies 22438-27-3D, Rubidium-103, conjugates,  
biological studies 22453-63-0D, Rubidium-97, conjugates,  
biological studies 22541-17-9D, Samarium ion(3+), conjugates,  
biological studies 22541-19-1D, Gadolinium (III), conjugates,  
biological studies 22541-20-4D, conjugates, biological studies  
 22541-21-5D, Dysprosium ion(3+), conjugates, biological studies  
 22541-22-6D, Holmium ion(3+), conjugates, biological studies  
 22541-53-3D, conjugates, biological studies 23713-46-4D,  
 Bismuth ion(3+), conjugates, biological studies 378784-45-3D,  
 Technetium-99m, conjugates, biological studies

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)  
 IT 50-07-7D, Mitomycin C, conjugates 50-18-0D, Cyclophosphamide,  
conjugates 50-76-0D, Actinomycin D, conjugates  
 51-21-8D, 5-Fluorouracil, conjugates 52-53-9D, Verapamil,  
conjugates 54-42-2D, Idoxuridine, conjugates  
 54-62-6D, Aminopterin, conjugates 57-22-7D, Vincristine,  
conjugates 59-05-2D, Methotrexate, conjugates  
 64-86-8D, Colchicine, conjugates 67-99-2, Aspergillin  
 70-00-8D, Trifluorothymidine, conjugates 127-07-1D,  
 Hydroxyurea, conjugates 147-94-4D, Cytosine arabinoside,  
conjugates 148-82-3D, Melphalan, conjugates  
 305-03-3D, Chlorambucil, conjugates 477-30-5D, Demecolcine,  
conjugates 768-94-5D, Amantadine, conjugates  
 865-21-4D, Vinblastine, conjugates 961-07-9D, Deoxyguanosine,  
conjugates 1391-36-2D, Duramycin, conjugates  
 1406-72-0, Restrictocin 1407-48-3,  $\alpha$ -Sarcin 2056-98-6D,  
conjugates 3056-17-5D, Stavudine, conjugates  
 4375-07-9, Epipodophyllotoxin 4428-95-9D, Foscarnet, conjugates  
 5536-17-4D, Vidarabine, conjugates 7481-89-2D, Zalcitabine,

conjugates 7689-03-4D, Camptothecin, conjugates  
9001-29-0D, Factor X, conjugates 9013-20-1D, Streptavidin,  
conjugates 9035-58-9D, Blood-coagulation factor III,  
conjugates 10540-29-1D, Tamoxifen, conjugates  
11056-06-7D, Bleomycin, conjugates 13392-28-4D, Rimantadine,  
conjugates 15663-27-1D, Cisplatin, conjugates  
18378-89-7D, Mithramycin, conjugates 20830-81-3D,  
Daunorubicin, conjugates 23214-92-8D, Doxorubicin,  
conjugates 25322-68-3D, Polyethylene  
glycol, conjugates 30516-87-1D, AZT,  
conjugates 33069-62-4D, Taxol, conjugates  
33419-42-0D, Etoposide, conjugates 36791-04-5D, Ribavirin,  
conjugates 39809-25-1D, Penciclovir, conjugates  
53643-48-4D, Vindesine, conjugates 59277-89-3D, Acyclovir,  
conjugates 69655-05-6D, Didanosine, conjugates  
75037-46-6, Gelenin 77181-69-2D, Sorivudine, conjugates  
82410-32-0D, Ganciclovir, conjugates 82855-09-2D,  
Comretastatin, conjugates 106941-25-7D, Adefovir,  
diphosphates and conjugates 113852-37-2D, Cidofovir,  
conjugates 114977-28-5D, Docetaxel, conjugates  
120082-86-2D, conjugates 127759-89-1D, Lobucavir,  
triphosphates and conjugates 127779-20-8D, Saquinavir,  
conjugates 129618-40-2D, Nevirapine, conjugates  
134678-17-4D, Lamivudine, conjugates 136470-78-5D, Abacavir,  
conjugates 136817-59-9D, Delavirdine, conjugates  
139110-80-8D, Zanamivir, conjugates 142340-99-6D, Adefovir  
dipivoxil, conjugates 143188-53-8D, Lamivudine triphosphate,  
conjugates 145819-92-7D, Emtricitabine triphosphate,  
conjugates 150378-17-9D, Indinavir, conjugates  
154598-52-4D, Efavirenz, conjugates 155213-67-5D, Ritonavir,  
conjugates 157885-16-0D, Neutravidin, conjugates  
159989-64-7D, Nelfinavir, conjugates 161814-49-9D, Amprenavir,  
conjugates 196618-13-0D, Oseltamivir, conjugates

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT 9068-38-6D, Reverse transcriptase, conjugates  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(inhibitors; Multinucleoside resistance A and Multinucleoside resistance B; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT 650663-90-4 650663-92-6  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(nucleotide sequence; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

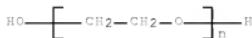
IT 650591-60-9 650670-60-3 650670-61-4  
RL: PRP (Properties)  
(unclaimed sequence; antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

IT 25322-68-3D, Polyethylene glycol,

conjugates

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

L147 ANSWER 11 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:20534 HCPLUS Full-text  
 DOCUMENT NUMBER: 140:92584  
 TITLE: Methods for therapeutic treatment utilizing sub-clinical amount of a therapeutic agent combined with or conjugated to an antibody, or fragment thereof  
 INVENTOR(S): Lazarovits, Janette; Nimrod, Abraham; Hoch-Mar-Chaim, Hagit; Levanon, Avigdor  
 PATENT ASSIGNEE(S): Savient Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 58 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002528	A1	20040108	WO 2003-US20604	20030630 <--
WO 2004002528	A9	20041118		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491427	A1	20040108	CA 2003-2491427	20030630 <--
AU 2003279567	A1	20040119	AU 2003-279567	20030630 <--
EP 1551452	A1	20050713	EP 2003-742338	20030630 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1678348	A	20051005	CN 2003-820441	20030630 <--
JP 2005534679	T	20051117	JP 2004-518133	20030630 <--
BR 2003012484	A	20080108	BR 2003-12484	20030630 <--
MX 2005PA00271	A	20050331	MX 2005-PA271	20050103 <--
PRIORITY APPLN. INFO.:			US 2002-189025	A 20020701 <--
			WO 2003-US20604	W 20030630 <--

ED Entered STN: 11 Jan 2004

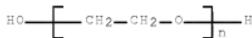
- AB The present invention relates to compns. utilizing an agent and an antibody, or fragment thereof. In these compns., the agents, including agents such as anti-cancer, anti-metastasis, anti-leukemia, anti-disease, anti-adhesion, anti-thrombosis, anti-restenosis, anti-autoimmune, anti-aggregation, anti-bacterial, anti-viral, and anti-inflammatory agents, can be complexed or combined with or conjugated to the antibodies, or fragments thereof. In addition, the agent and/or the antibody, or fragment thereof, can be present in the composition in a sub-clin. amount, which is an amount that is less than the amount of the agent generally found to be clin. effective when the agent is administered alone. Preferably, in these compns. of the present invention, the agent is an anthracycline or a derivative thereof, e.g., doxorubicin (adriamycin) or a derivative thereof. The antibodies or fragments are capable of binding to, e.g. PSGL-1, fibrinogen γ<sup>v</sup>, GPIbα, heparin, lumican, complement C4 inter-α inhibitor and prothrombin. Antibodies were identified by screening a human antibody phage display library, which has diversity only in the heavy chain CDR3 regions. Specific examples of antibodies disclosed in these applications include the Y1 and Y17 scFv antibody fragments that bind glyocalicin mols. on platelets. In addition, the L32 and L31 scFv antibody fragments were disclosed that bind leukemic cells.
- ICM A61K039-395
- ICS A61K051-00; A61K038-00; A61K039-00
- CC 15-3 (Immunochemistry)
- Section cross-reference(s): 1, 3, 8, 63
- ST human antibody fragment phage display library sequence; platelet antibody thrombosis anticoagulant; anticancer cancer diagnosis antibody leukemia
- IT Glycoproteins
- RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(GPIb, α, antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Glycoproteins
- RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(PSGL-1 (P-selectin glycoprotein ligand-1), antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Amino acids, biological studies
- RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(acidic, epitope comprising; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Platelet (blood)  
(adhesion, inhibition; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Antibodies and Immunoglobulins
- RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(complexes; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Epitopes  
(comprising acidic amino acids and sulfated tyrosine residue; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Antibodies and Immunoglobulins
- RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL

- (Biological study); USES (Uses)  
 (conjugates; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Drug delivery systems  
 (dextran, lipophilic polymers, hydrophilic polymers, HPMA; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Polyoxyalkylenes, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (endotoxins, Pseudomonas, PE40, PE38; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Antibodies and Immunoglobulins  
 RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (fragments, scFv or Fab; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Glycoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (glycocalicins, platelet, antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Cell proliferation  
 (inhibition, tumor; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Adhesion, biological  
Cell aggregation  
Platelet aggregation  
 (inhibition; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Drug delivery systems  
 (liposomes, doxorubicin-decorated; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Proteoglycans, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (lumicans, antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Neoplasm  
 (metastasis; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Acute myeloid leukemia  
Anti-inflammatory agents  
Antibacterial agents  
Anticoagulants  
Antitumor agents  
Antiviral agents

- Autoimmune disease
- B-cell leukemia
- Chemotherapy
- Chronic B-cell leukemia
- Human
- Immunotherapy
- Inflammation
- Leukemia
- Molecular cloning
- Multiple myeloma
- Neoplasm
- Phage display library
- Platelet (blood)
- Platelet aggregation inhibitors
- Radiotherapy
- Thrombolytics
- Thrombosis
  - (methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Antibodies and Immunoglobulins**
  - RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Anthracyclines**
  - Radionuclides, biological studies
  - Ricins
  - Toxins
    - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
      - (methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Protein sequences**
  - (of antibody fragments; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Artery, disease**
  - (restenosis; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Cell death**
  - (tumor, induction; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Interferons**
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - ( $\alpha$ ; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT Fibrinogens**
  - RL: BSU (Biological study, unclassified); BIOL (Biological study)
    - ( $\gamma$  chain,  $\gamma'$ , antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 23214-92-8, Doxorubicin**
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (-decorated liposome; methods for therapeutic treatment utilizing

- sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 147-94-4, Cytarabine  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Ara-C; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 9041-08-1, Heparin sodium  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Reviparin, Dalteparin; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 212783-20-5 212783-31-8 268723-76-8 442527-61-9 642928-14-1  
 RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (amino acid sequence, antibody fragment; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 645004-07-5 645004-08-6 645004-09-7  
 RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (amino acid sequence; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 9001-26-7, Prothrombin 9005-49-6, Heparin, biological studies  
 39346-44-6, Inter-. $\alpha$ .-trypsin inhibitor 80295-48-3, Complement C4  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (antibody against; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 9004-54-0, Dextran, biological studies 25322-68-3,  
Polyethylene glycol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 60-18-4D, Tyrosine, sulfated  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (epitope comprising; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)
- IT 50-18-0, Cyclophosphamide 50-35-1, Thalidomide 50-78-2, Aspirin  
 53-03-2, Prednisone 53-86-1, Indomethacin 57-22-7, Vincristine  
 127-07-1, Hydroxyurea 305-03-3, Chlorambucil 7440-15-5D, Rhenium,  
 isotopes, biological studies 7440-63-3D, Xenon, isotope of mass 33,  
 biological studies 9004-61-9, Hyaluronic acid 10043-66-0, Iodine-131,  
 biological studies 10098-91-6, Yttrium-90, biological studies  
 11056-06-7, Bleomycin 13968-53-1, Ruthenium-103, biological studies  
 13981-56-1, Fluorine-18, biological studies 13982-78-0, Mercury-203,  
 biological studies 14041-48-6, Thulium-165, biological studies  
 14119-09-6, Gallium-67, biological studies 14133-76-7, Technetium-99,  
 biological studies 14158-32-8, Iodine-126, biological studies  
 14331-95-4, Ruthenium-105, biological studies 14390-71-7, Tellurium-122,  
 biological studies 14390-73-9, Tellurium-125, biological studies  
 14391-22-1, Thulium-167, biological studies 14834-67-4, Iodine-133,  
 biological studies 14885-78-0, Indium 113, biological studies  
 14900-13-1, Thulium-168, biological studies 15307-86-5, Diclofenac  
 15663-27-1, cis-Platinum 15678-91-8, Krypton-81, biological studies  
 15687-27-1, Ibuprofen 15715-08-9, Iodine-123, biological studies

15750-15-9, Indium 111, biological studies 15756-62-4, Ruthenium-95, biological studies 15757-14-9, Gallium-68, biological studies 15758-35-7, Ruthenium-97, biological studies 15765-39-6, Bromine-77, biological studies 15776-20-2, Bismuth-213, biological studies 20830-81-3, Daunorubicin 21679-14-1, Fludarabine 22204-53-1, Naproxen 30516-87-1, Zidovudine 33069-62-4, Taxol 38194-50-2, Sulindac 51146-56-6, Dexibuprofen 51803-78-2, Nimesulide 52549-17-4, Pranoprofen 58957-92-9, Idarubicin 59277-89-3, Acyclovir 73963-72-1, Cilostazol 74397-12-9, Limaprost 74711-43-6, Zaltoprofen 75037-46-6D, Gelonin, derivs. 75706-12-6, Leflunomide 79867-78-0, Morpholinodaunorubicin 80790-68-7, Morpholinodoxorubicin 82410-32-0, Ganciclovir 83712-60-1, Defibrotide 85622-93-1, Temozolamide 87344-06-7 90101-16-9, Droxicam 108852-90-0, Methoxymorpholinodoxorubicin 113440-58-7, Calicheamicin 162011-90-7, Rofecoxib 169590-42-5, Celecoxib 173146-27-5, Denileukin diftitox 262423-20-1, Subreum 425603-01-6, WinRho SDF 640734-07-2, Clorcromene  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)  
 IT 485815-21-2  
 RL: PRP (Properties)  
 (unclaimed sequence; methods for therapeutic treatment utilizing sub-clin. amount of a therapeutic agent combined with or conjugated to an antibody, or fragment thereof)  
 IT 25322-68-3, Polyethylene glycol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (drug delivery using; methods for therapeutic treatment utilizing sub-clin. amount of therapeutic agent combined with or conjugated to antibody, or fragment thereof)  
 RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 12 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:931486 HCPLUS Full-text  
 DOCUMENT NUMBER: 140:1655  
 TITLE: Sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compositions, antibodies and methods of using scytovirins  
 INVENTOR(S): Boyd, Michael R.; Bokesch, Heidi R.; O'Keefe, Barry R.; McKee, Tawnya C.  
 PATENT ASSIGNEE(S): The Government of the United States of America, Represented by the Secretary Dept. of Health and Human Services, USA  
 SOURCE: PCT Int. Appl., 63 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097814	A2	20031127	WO 2003-US15991	20030515 <--
WO 2003097814	A3	20040701		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2484719	A1	20031127	CA 2003-2484719	20030515 <--
AU 2003248545	A1	20031202	AU 2003-248545	20030515 <--
EP 1515738	A2	20050323	EP 2003-753112	20030515 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005084496	A1	20050421	US 2004-513961	20041220 <--
PRIORITY APPLN. INFO.:			US 2002-381322P	P 20020516 <--
			WO 2003-US15991	W 20030515 <--

ED Entered STN: 28 Nov 2003

AB The present invention provides sequences of scytovirins isolated from Scytonema varium and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins. Specifically, the invention relates to the isolated or purified antiviral protein consisting essentially of the amino acid sequence of SEQ ID NO: 1, or an antiviral fragment, a variant, fusion protein or conjugate thereof; a composition comprising (i) at least one of the foregoing and (ii) a carrier, excipient or adjuvant; an isolated or purified nucleic acid encoding the amino acid sequence of the antiviral protein or antiviral fragment thereof, or a variant or fusion protein of either of the foregoing; an isolated cell comprising an above-described isolated or purified nucleic acid; a composition comprising (i) an above-described isolated or purified nucleic acid, and (ii) a carrier, excipient or adjuvant. The invention further relates to a method of inhibiting a viral infection of a host, inhibiting a virus in a biol. sample or in/on an inanimate object, comprising administering a viral infection-inhibiting amount of atomic least one of an above-described antiviral protein or an antiviral fragment thereof, a variant or fusion protein of either of the foregoing, an above-described nucleic acid; and a method of inhibiting infection of a mammal with a virus comprising administering to the mammal an anti-scytovirin antibody to induce an immune response.

IC ICM C12N

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 1, 6, 10

ST sequence scytonema scytovirin conjugate fusion protein vector  
antibody antiviral

IT Immunostimulants

(adjuvants; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)

IT Proteins

RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);

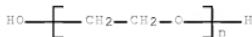
THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antiviral; sequences of Scytonema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns.,

- antibodies and methods of using scytovirins)
- IT Drug delivery systems  
 (carriers; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Proteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (coat; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Fusion proteins (chimeric proteins)  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (comprising scytovirin; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Genetic vectors  
 (encoding scytovirin; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Albumins, biological studies  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);  
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fusion protein comprising; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Glycoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (gp120; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Oligosaccharides, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (mannose; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Proteins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (scytovirin; sequences of Scytomema varium scytovirins and related conjugates, fusion proteins, vectors, host cells, compns., antibodies and methods of using scytovirins)
- IT Antiviral agents
- Blood
- Body fluid
- Eubacteria
- Human
- Human immunodeficiency virus
- Immunostimulants
- Lactobacillus
- Mammalia
- Protein sequences
- Scytomema varium
- Sperm
- Vaccines
- Yeast
- (sequences of Scytomema varium scytovirins and related

- conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT Glycoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (sequences of Scytosoma varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT Polyoxalkylenes, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (sequences of Scytosoma varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT Toxins  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (sequences of Scytosoma varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT Matrix media  
 (solid support; sequences of Scytosoma varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT Antibodies and Immunoglobulines  
 RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST  
 (Analytical study); BIOL (Biological study); USES (Uses)  
 (specific for scytovirin; sequences of Scytosoma varium scytovirins and  
 related conjugates, fusion proteins, vectors, host cells,  
 compns., antibodies and methods of using scytovirins)
- IT Infection  
 (viral, treatment of; sequences of Scytosoma varium scytovirins and  
 related conjugates, fusion proteins, vectors, host cells,  
 compns., antibodies and methods of using scytovirins)
- IT 627563-68-2P, Scytovirin (Scytosoma varium)  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (amino acid sequence; sequences of Scytosoma varium scytovirins and  
 related conjugates, fusion proteins, vectors, host cells,  
 compns., antibodies and methods of using scytovirins)
- IT 3458-28-4, Mannose  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (oligosaccharide; sequences of Scytosoma varium scytovirins  
 and related conjugates, fusion proteins, vectors, host cells,  
 compns., antibodies and methods of using scytovirins)
- IT 9004-54-0, Dextran, biological studies 25322-68-3,  
Polyethylene glycol  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (sequences of Scytosoma varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)
- IT 627564-57-2 627564-58-3 627564-59-4 627564-60-7 627583-17-9  
 RL: PRP (Properties)  
 (unclaimed protein sequence; sequences of Scytosoma varium scytovirins  
 and related conjugates, fusion proteins, vectors, host cells,  
 compns., antibodies and methods of using scytovirins)
- IT 627528-44-3  
 RL: PRP (Properties)  
 (unclaimed sequence; sequences of Scytosoma varium scytovirins and

related conjugates, fusion proteins, vectors, host cells,  
compns., antibodies and methods of using scytovirins)  
IT 25322-68-3, Polyethylene glycol  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(sequences of Scytonema varium scytovirins and related  
conjugates, fusion proteins, vectors, host cells, compns.,  
antibodies and methods of using scytovirins)  
RN 25322-68-3 HCPLUS  
CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 13 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:697050 HCPLUS Full-text  
DOCUMENT NUMBER: 139:229263  
TITLE: Anti-CCR5 antibody and conjugates  
for treating HIV-1 infection  
INVENTOR(S): Olson, William C.; Maddon, Paul. J.  
PATENT ASSIGNEE(S): Progenics Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 124 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003072766	A1	20030904	WO 2003-US5500	20030221 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
GW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2476901	A1	20030904	CA 2003-2476901	20030221 <--
AU 2003217674	A1	20030909	AU 2003-217674	20030221 <--
EP 1478738	A1	20041124	EP 2003-713632	20030221 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508631	T	20060316	JP 2003-571454	20030221 <--
CN 1780907	A	20060531	CN 2003-809060	20030221 <--
NZ 534947	A	20080328	NZ 2003-534947	20030221 <--
RU 2322454	C2	20080420	RU 2004-128252	20030221 <--
MX 2004PA08153	A	20050705	MX 2004-PA8153	20040823 <--
ZA 2004006765	A	20060628	ZA 2004-6765	20040825 <--
NO 2004003971	A	20041116	NO 2004-3971	20040922 <--
PRIORITY APPLN. INFO.:			US 2002-81128	Al 20020222 <--
			WO 2003-US5500	W 20030221 <--

- ED    Entered STN: 05 Sep 2003
- AB    The invention is directed an anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising an expression product of either a plasmid designated pVg1:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVg1:HuPR0140 (mutB+D+I)-VH (ATCC Deposit Designation PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human cell.
- IC    ICM C12N005-06  
CC    15-3 (Immunochemistry)  
Section cross-reference(s): 1, 3, 8, 9, 63
- ST    CCR5 antibody light heavy chain conjugate HIV1 human cell
- IT    Chemokine receptors  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(CCR5; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Animal cell line  
(CHO; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Animal cell line  
(COS; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Antibodies and Immunoglobulins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(IgG1; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(branched and unbranched; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Drug delivery systems  
(carriers; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Antibodies and Immunoglobulins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(fragments; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Antibodies and Immunoglobulines  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(fusion products; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT    Glycoproteins

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (gp120; humanized anti-CCR5 antibody and conjugates  
 for inhibiting gp120-CD4 binding and for treating HIV-1  
 infection)

IT Blood serum  
 (half life or clearance rate; humanized anti-CCR5 antibody  
 and conjugates for inhibiting gp120-CD4 binding and  
 for treating HIV-1 infection)

IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (heavy chain; humanized anti-CCR5 antibody and  
conjugates for inhibiting gp120-CD4 binding and for  
 treating HIV-1 infection)

IT Animal cell  
 (human; humanized anti-CCR5 antibody and conjugates  
 for inhibiting gp120-CD4 binding and for treating HIV-1  
 infection)

IT Antiviral agents  
 Biomarkers  
 CD4-positive T cell  
 Cytotoxic agents  
 DNA sequences  
 Genetic vectors  
 Human  
 Human immunodeficiency virus 1  
 Labels  
 Molecular cloning  
 Multiple myeloma  
 Protein sequences  
 (humanized anti-CCR5 antibody and conjugates for  
 inhibiting gp120-CD4 binding and for treating HIV-1  
 infection)

IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (humanized anti-CCR5 antibody and conjugates for  
 inhibiting gp120-CD4 binding and for treating HIV-1  
 infection)

IT Chemokines  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (humanized anti-CCR5 antibody and conjugates for  
 inhibiting gp120-CD4 binding and for treating HIV-1  
 infection)

IT Alditols  
 CD4 (antigen)  
 DNA  
 Nucleic acids  
 Polymers, biological studies  
Polyoxalkylenes, biological studies  
 RNA  
 Radionuclides, biological studies  
Toxins  
 cDNA  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (humanized anti-CCR5 antibody and conjugates for

- inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (humanized; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Drug delivery systems  
 (immunoconjugates; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Drug delivery systems  
 (immunotoxins; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Drug delivery systems  
 (injections, i.m.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Drug delivery systems  
 (injections, i.v.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Drug delivery systems  
 (injections, s.c.; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (light chain; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Animal cell  
 (mammalian; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Epitopes  
 (mapping; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Fluorescent substances  
 (marker; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Plasmids  
 (pVg1:HuPRO140 (mut B+D+I)-VH; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)
- IT Plasmids

(pVg1:HuPRO140 HG2-VH; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT Plasmids  
 (pVk:HuPRO140-Vk; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT Drug delivery systems  
 (polymer-bound; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT 9003-01-4D, crosslinked, derivs.  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Carbomer; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT 592568-86-0P 592568-87-1P 592568-88-2P  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (amino acid sequence; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT 9002-89-5D, Poly(vinyl alcohol), derivs. 9005-49-6D, Heparin, polymers 25087-26-7D, Polymethacrylic acid, derivs. 25322-68-3,  
Polyethylene glycol 70226-44-7D, Heparan, polymers  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

IT 592568-83-7P 592568-84-8P 592568-85-9P  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (nucleotide sequence; humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

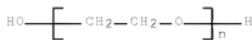
IT 592572-05-9, 7: PN: WO03072766 SEQID: 7 unclaimed DNA 592572-06-0  
 592572-07-1  
 RL: PRP (Properties)  
 (unclaimed nucleotide sequence; anti-CCR5 antibody and conjugates for treating HIV-1 infection)

IT 200803-28-7 200803-29-8 228120-60-3 228120-61-4  
 RL: PRP (Properties)  
 (unclaimed sequence; anti-CCR5 antibody and conjugates for treating HIV-1 infection)

IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (humanized anti-CCR5 antibody and conjugates for inhibiting gp120-CD4 binding and for treating HIV-1 infection)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

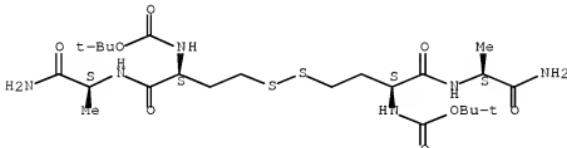


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L147 ANSWER 14 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:435926 HCPLUS [Full-text](#)  
 DOCUMENT NUMBER: 139:133828  
 TITLE: [Synthesis of S-Linked Glycopeptides in Aqueous Solution](#)  
 AUTHOR(S): Zhu, Xiangming; Pachamuthu, Kandasamy; Schmidt, Richard R.  
 CORPORATE SOURCE: Fachbereich Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany  
 SOURCE: [Journal of Organic Chemistry \(2003\), 68\(14\), 5641-5651](#)  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:133828  
 ED Entered STN: 08 Jun 2003  
 AB Direct [S-glycosylation](#) of homocysteine- and cysteine-containing [peptides](#) with O-acetyl protected [glycosyl halides](#) performed under two-phase conditions in the presence of sodium carbonate as base gave excellent results. Glucosyl bromide, galactosyl bromide, lactosyl bromide, sialyl chloride, and N-Troc-2-amino-2-deoxyglucosyl bromide were used as [S-glycosylation](#) agents. Depending on the solubility of the [peptide](#) moiety, mixts. of DMF and water could be used for successfully carrying out this reaction. Thus, S- [glycosylated tripeptides](#) Boc-Thr-Hcy(R)-Ala-NH2 [Hcy = L-homocysteinyl; R = 2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl; 3,4,6-tri-O-acetyl-2-deoxy-2-(2,2,2-trichloroethylloxycarbonylamino)-β-D-glucopyranosyl; R = 2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl] were obtained. Combination of this method with chemical ligation was also successfully carried out.  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 33  
 ST [glycopeptide S linked prep; glycosylation thio homocysteine cysteine peptide protected glycosyl halide](#)  
 IT [Glycopeptides](#)  
 RL: SPN (Synthetic preparation); PREP (Preparation) ([preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides](#))  
 IT [Glycosylation](#) ([thioglycosylation; preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides](#))  
 IT 100-14-1, p-Nitrobenzyl chloride 144-48-9, Iodoacetamide 528-76-7, 2,4-Dinitrobenzenesulfenyl chloride 572-09-8 626-72-2, L-Homocystine 2592-18-9 3068-32-4 4753-07-5 10389-65-8 18598-74-8 33208-99-0 41036-19-5 53559-18-5 60108-51-2 67124-60-1 67670-69-3 67817-15-6 569341-16-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)

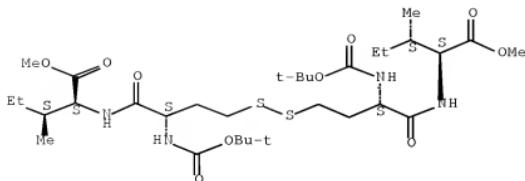
	(preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides)					
IT	130981-51-0P	569341-03-3P	569341-04-4P	569341-05-5P		
	569341-06-6P	569341-21-5P	569341-23-7P	569341-24-8P		
	569341-28-2P	569341-29-3P	569341-30-6P	569341-31-7P		
	569341-36-2P	569341-37-3P				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)					
	(preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides)					
IT	569341-07-7P	569341-08-8P	569341-09-9P	569341-10-2P	569341-11-3P	
	569341-12-4P	569341-13-5P	569341-14-6P	569341-17-9P	569341-18-0P	
	569341-19-1P	569341-20-4P	569341-22-6P	569341-25-9P	569341-26-0P	
	569341-27-1P	569341-32-8P	569341-33-9P	569341-34-0P	569341-35-1P	
	RL: SPN (Synthetic preparation); PREP (Preparation)					
	(preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides)					
IT	569341-04-3P	569341-28-2P				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)					
	(preparation of S-linked glycopeptides via direct thioglycosylation of homocysteinyl and cysteinyl peptides by O-acetyl-protected glycosyl halides)					
RN	569341-03-3	HCPLUS				
CN	L-Alaninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-homocysteinyl-, bimol. (1→1')-disulfide (9CI) (CA INDEX NAME)					

Absolute stereochemistry. Rotation (-).



RN	569341-04-4	HCPLUS
CN	L-Isoleucine, N-[(1,1-dimethylethoxy)carbonyl]-L-homocysteinyl-, methyl ester, bimol. (1→1')-disulfide (9CI) (CA INDEX NAME)	

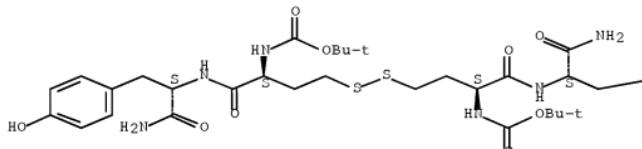
Absolute stereochemistry. Rotation (+).



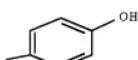
RN 569341-28-2 HCAPLUS  
 CN L-Tyrosinamide, N-(1,1-dimethylethoxy)carbonyl-L-homocysteiny1-, bimol.  
 (1->1')-disulfide (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 15 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:72183 HCAPLUS Full-text  
 DOCUMENT NUMBER: 136:123686  
 TITLE: Preparation of polysaccharide-based hydrogel films  
 INVENTOR(S): Luo, Yi; Prestwich, Glenn D.; Kirker, Kelly R.  
 PATENT ASSIGNEE(S): University of Utah Research Foundation, USA  
 SOURCE: PCT Int. Appl., 92 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002006373	A1	20020124	WO 2001-US22556	20010717 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2416698	A1	20020124	CA 2001-2416698	20010717 <--
EP 1305355	A1	20030502	EP 2001-957173	20010717 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			US 2000-218725P	P 20000717 <--
			WO 2001-US22556	W 20010717 <--

ED Entered STN: 25 Jan 2002

AB The present invention provides improved hydrogel films useful for the therapeutic treatment. The invention also provides materials and methods for modification and polymerization of polysaccharides into hydrogel films, which swell after exposure to a neutral aqueous solution. The methods may include modification of a polysaccharide having at least 1 carboxylic acid group into a polysaccharide dihydrazide derivative, which is then crosslinked with a polyaldehyde to create a hydrogel film. The invention also relates to pharmaceutical compns. composed of a pharmaceutical and a hydrogel film of the invention. Hyaluronic acid was treated with adipic dihydrazide (ADH) followed by the reaction with PEG-dialdehyde. Hydrogel films were successfully produced when the crosslinking agent (PEG -dialdehyde) was used in a molar ratio of 0.25, 0.5, and 1 relative to ADH.

IC ICM C08G063-48

ICS C08G063-91; A61K009-14

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 33, 37

ST polysaccharide adipic hydrazide PEG hydrogel prepn

IT Peptides, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(agonists; preparation of polysaccharide-based hydrogel films)

IT Antibodies and Immunoglobulins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugatee, with toxins; preparation of  
polysaccharide-based hydrogel films)

IT Drug delivery systems

(hydrogels; preparation of polysaccharide-based hydrogel films)

IT Glycosaminoglycans, biological studies

Polysaccharides, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(reaction products with polyoxalkylenes; preparation of  
polysaccharide-based hydrogel films)

IT 1071-93-8DP, Adipic dihydrazide, reaction products polysaccharides

9004-61-9DP, Hyaluronic acid, derivs., reaction products with

polyoxalkylenes 9007-28-7DP, Chondroitin sulfate, derivs.,

reaction products with polyoxalkylenes 9067-32-7DP, Sodium

Hyaluronate, derivs., reaction products with polyoxalkylenes

24967-93-9DP, Chondroitin 4-sulfate, derivs., reaction products with

polyoxalkylenes 25322-46-7DP, Chondroitin 6-sulfate, derivs.,

reaction products with polyoxyalkylenes 151709-76-1P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of polysaccharide-based hydrogel films)

IT 50-02-2, Dexamethasone 50-22-6, Corticosterone 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-36-2, Cocaine 51-21-8, 5-Fluorouracil 51-61-6, Dopamine, biological studies 53-03-2, Prednisone 53-06-5, Cortisone 53-86-1, Indomethacin 54-05-7, Chloroquine 57-27-2, Morphine, biological studies 57-83-0, Progesterone, biological studies 58-22-0, Testosterone 58-55-9, Theophylline, biological studies 58-73-1, Diphenhydramine 58-74-2, Papaverine 59-05-2, Methotrexate 59-67-6, Niacin, biological studies 60-54-8, Tetracycline 61-33-6, biological studies 69-72-7, Salicylic acid, biological studies 71-81-8, Isopropamide iodide 83-43-2, 6 $\alpha$ -Methylprednisolone 92-13-7, Pilocarpine 94-09-7, Benzocaine 103-90-2, Acetaminophen 137-58-6, Lidocaine 317-34-0, Aminophylline 465-65-6, Naloxone 564-25-0, Doxycycline 865-21-4, Vinblastine 1403-66-3, Gentamycin 1405-87-4, Bacitracin 4146-43-4D, Butanedioic acid dihydrazide, reaction products polysaccharides 5104-49-4, Flurbiprofen 5536-17-4, Vidarabine 5874-97-5, Metaproterenol sulfate 9000-11-7D, Carboxymethyl cellulose, derivs., reaction products with polyoxyalkylenes 9000-69-5D, Pectin, derivs., reaction products with polyoxyalkylenes 9002-01-1, Streptokinase 9002-68-0, Follicle stimulating hormone 9002-72-6, Somatotropin 9004-10-8, Insulin, biological studies 9005-32-7D, Alginic acid, derivs., reaction products with polyoxyalkylenes 9005-49-6D, Heparin, derivs., reaction products with polyoxyalkylenes 9050-30-0D, Heparan sulfate, derivs., reaction products with polyoxyalkylenes 11111-12-9, Cephalosporin 15307-79-6, Diclofenac sodium 15663-27-1, Cisplatin 15687-27-1, Ibuprofen 16590-41-3, Naltrexone 20247-84-1D, Suberic acid dihydrazide, reaction products polysaccharides 22204-53-1, Naproxen 24967-94-0D, Dermatan sulfate, derivs., reaction products with polyoxyalkylenes 25316-40-9, Adriamycin 36322-90-4, Piroxicam 38304-91-5, Minoxidil 52485-79-7, Buprenorphine 61912-98-9, Insulin-like growth factor 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 62683-29-8, Colony stimulating factor 70226-44-7D, Heparan, derivs., reaction products with polyoxyalkylenes 75634-40-1D, Dermatan, derivs., reaction products with polyoxyalkylenes 106096-93-9, Basic Fibroblast growth factor 106266-06-2, Risperidone  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of polysaccharide-based hydrogel films)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 16 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:935447 HCPLUS Full-text

DOCUMENT NUMBER: 136:58851

TITLE: Targeted combination immunotherapy of cancer and infectious diseases

INVENTOR(S): Griffiths, Gary L.; Hansen, Hans J.; Goldenberg, David M.

PATENT ASSIGNEE(S): Immunomedics, Inc., USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001097855	A2	20011227	WO 2001-US41048	20010620 <--
WO 2001097855	A3	20030731		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 7011812	B1	20060314	US 2000-597580	20000620 <--
EP 1351712	A2	20031015	EP 2001-951084	20010620 <--
EP 1351712	B1	20070801		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 368477	T	20070815	AT 2001-951084	20010620 <--
US 20030232011	A1	20031218	US 2003-361026	20030210 <--
US 7300644	B2	20071127		
US 20080031813	A1	20080207	US 2007-872139 US 2000-597580 US 1996-17011P US 1998-184950 WO 2001-US41048 US 2003-361026	20071015 <-- A 20000620 <-- P 19960503 <-- A2 19981103 <-- W 20010620 <-- A3 20030210 <--
PRIORITY APPLN. INFO.:				

ED Entered STN: 28 Dec 2001

AB The present invention is directed to methods for treating cancer wherein more than one therapeutic agent is used, with each of the therapeutic agents having different tumor-killing capabilities, and wherein the therapeutic agents are delivered to the tumor sites using combined targeting and pre-targeting methods. The methods of the present invention achieve good tumor to non-tumor ratios of the therapeutic agents, and are effective for cancer therapy. It comprises administering a first conjugate, which contains a targeting moiety, a therapeutic agent, and a first member of a binding pair; then optionally administering a clearing agent to clear non-targeted first conjugates; and then administering a second conjugate, which contains the complementary binding member of the binding pair and a second therapeutic agent. The targeting moiety is an antibody or an antigen binding antibody fragment capable of specifically binding to at least one epitope on the marker substances associated with, produced by or on the surface of the tumor or infectious disease causing agent, or on a component of the second conjugate. The therapeutic agents may be radionuclides, drugs, toxins or boron addends.

ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 8, 15

IT Antibodies and Immunoglobulins

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(MN-14, to carcinoembryonic antigen, conjugates with yttrium-88; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins with clearing agents)

IT Ribosome-inactivating proteins

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(PAP (pokeweed antiviral protein), conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious

- diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Sulfonic acids, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (alkanesulfonic, salts, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antibodies and Immunoglobulins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-idiotypic, as clearing agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Carcinoembryonic antigen  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (antibodies to, conjugates with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antigens  
 Haptens  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (as target for therapeutic conjugates; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antibodies and Immunoglobulins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bispecific, conjugates with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Nucleopeptides  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (complementary, conjugates with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antibiotics  
 (conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Abrins  
 Corticosteroids, biological studies  
 Cytokines  
 Enzymes, biological studies  
Exotoxins  
 Hormone antagonists  
 Hormones, animal, biological studies  
Ricins  
Toxins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT CDNA  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antibodies and Immunoglobulins  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates, with therapeutic agents; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Toxins  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(diphtheria, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Polymers, biological studies  
Polyoxalkylenes, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(drug conjugates containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Drug delivery systems  
(immunoconjugates; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Drug delivery systems  
(immunotoxins; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Radionuclides, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(labeled conjugates containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Drug delivery systems  
(liposomes, drug conjugates containing targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antibodies and Immunoglobulins  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(monoclonal, anti-idiotypic, biotinylated and galactosylated, as clearing agents; targeted combination immunotherapy of cancer and

- infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins with clearing agents)
- IT Chloramines  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nitrogen mustards, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Drug delivery systems  
 (prodrugs; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Ribosome-inactivating proteins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (saporin, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Antitumor agents  
Drug delivery systems  
 Drug interactions  
 Infection  
 Radiotherapy  
 (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Alkaloids, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vinca, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT Toxins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 ( $\alpha$ -, conjugates with targeting moieties; targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT 67-43-6D, Diethylenetriaminepentaacetic acid, antibody conjugates labeled with yttrium-88 9013-20-1D, Streptavidin, antibody conjugates labeled with yttrium-88 13982-36-0D, Yttrium-88, labeled conjugates containing targeting moieties, biological studies 15750-15-9D, Indium-111, labeled conjugates containing targeting moieties, biological studies 127893-37-2D, indium-111 complex, reaction product with biotin peptide 192221-14-0D, reaction product with Zz-DTPA-In111 complex  
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)
- IT 57-13-6D, Urea, derivs., conjugates with targeting moieties 59-30-3D, Folic acid, analogs, conjugates with targeting moieties 60-34-4D, Methyl hydrazine, derivs., conjugates with

targeting moieties 120-73-0D, Purine, analogs, conjugates with targeting moieties 151-56-4D, Ethylenimine, derivs., conjugates with targeting moieties 289-95-2D, Pyrimidine, analogs, conjugates with targeting moieties 7440-06-4D, Platinum, coordination complexes, conjugates with targeting moieties 7440-42-8D, Boron, addends, conjugates with targeting moieties 7689-03-4D, Camptothecin, conjugates with targeting moieties 9001-99-4D, DNase, conjugates with targeting moieties 9003-98-9D, Iodine-131, labeled conjugates containing targeting moieties, biological studies 10098-91-6D, Yttrium-90, labeled conjugates containing targeting moieties, biological studies 13010-20-3D, Nitrosourea, derivs., conjugates with targeting moieties 13967-65-2D, Holmium-166, labeled conjugates containing targeting moieties, biological studies 13981-25-4D, Copper-64, labeled conjugates containing targeting moieties, biological studies 14158-31-7D, Iodine-125, labeled conjugates containing targeting moieties, biological studies 14158-35-1D, Iridium-194, labeled conjugates containing targeting moieties, biological studies 14265-75-9D, Lutetium-177, labeled conjugates containing targeting moieties, biological studies 14378-26-8D, Rhenium-188, labeled conjugates containing targeting moieties, biological studies 14391-11-8D, Gold-199, labeled conjugates containing targeting moieties, biological studies 14391-19-6D, Terbium-161, labeled conjugates containing targeting moieties, biological studies 14391-96-9D, Scandium-47, labeled conjugates containing targeting moieties, biological studies 14596-37-3D, Phosphorus-32, labeled conjugates containing targeting moieties, biological studies 14687-61-7D, Arsenic-77, labeled conjugates containing targeting moieties, biological studies 14981-64-7D, Palladium-109, labeled conjugates containing targeting moieties, biological studies 14981-79-4D, Praseodymium-143, labeled conjugates containing targeting moieties, biological studies 14998-63-1D, Rhenium-186, labeled conjugates containing targeting moieties, biological studies 15056-34-5D, Triazene, derivs., conjugates with targeting moieties 15092-94-1D, Lead-212, labeled conjugates containing targeting moieties, biological studies 15749-57-2D, labeled conjugates containing targeting moieties, biological studies 15749-66-3D, Phosphorus-33, labeled conjugates containing targeting moieties, biological studies 15755-39-2D, Astatine-211, labeled conjugates containing targeting moieties, biological studies 15757-86-5D, Copper-67, labeled conjugates containing targeting moieties, biological studies 15760-04-0D, Silver-111, labeled conjugates containing targeting moieties, biological studies 15765-78-3D, Rhenium-189, labeled conjugates containing targeting moieties, biological studies 15766-00-4D, Samarium-153, labeled conjugates containing targeting moieties, biological studies 15776-20-2D, Bismuth-213, labeled conjugates containing targeting moieties, biological studies 25322-68-3D, FEG, drug conjugates containing targeting moieties 33069-62-4D, Taxol, conjugates with targeting moieties 75037-46-6D, Gelonin, conjugates with targeting moieties 113440-58-7D, Calicheamicin, conjugates with targeting moieties 187888-07-9D, Endostatin, conjugates with targeting moieties

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

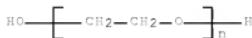
(targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)

IT 25322-68-3D, FEG, drug conjugates containing

targeting moieties

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (targeted combination immunotherapy of cancer and infectious diseases using conjugates of targeting moieties and radionuclides or drugs or toxins or boron addends with clearing agents)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

L147 ANSWER 17 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:568348 HCAPLUS Full-text

DOCUMENT NUMBER: 135:170778

TITLE: Anti-tissue factor antibody-chemotherapeutic agent conjugates

INVENTOR(S): Sekimori, Yasuo; Miyamoto, Hajime; Kawada, Hiromitsu; Nagao, Shunsuke

PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001213804	A	20010807	JP 2000-22898	20000131 <--
			JP 2000-22898	20000131 <--

PRIORITY APPLN. INFO.: ED Entered STN: 07 Aug 2001

AB The invention relates to an anti-tissue factor antibody -antitumor agent conjugate or an anti-tissue factor antibody-toxin conjugate with a linking agent providing improved drug targeting effect. An immunotoxin of anti-tissue factor antibody-gelonin conjugate was prepared with N-succinimidyl 3-(2-pyridylidithio)propionate, and its inhibitory effect on protein synthesis in J 82 human bladder carcinoma cells was examined

IC ICM A61K045-00  
 ICS A61K039-395; A61K049-00; A61P035-00; C07K014-52; C07K014-745;  
 C07K016-36; C07K019-00; C12P021-08

CC 63-6 (Pharmaceuticals)

ST Section cross-reference(s): 1, 15

IT immunoconjugate tissue factor antibody antitumor; immunotoxin tissue factor antibody gelonin

IT Ricins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (A; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)

IT Toxins

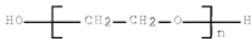
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (ML-I (mistletoe lectin I); anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with

- linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (PAP-S (pokeweed antiviral protein); anti-tissue factor  
antibody-antitumor agent conjugates or anti-tissue  
factor antibody-toxin conjugates with  
linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Tritin; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Volkesin; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Antitumor agents  
 Drug targeting  
 (anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Cytokines  
 Interferons  
 Interleukin 2  
 Tumor necrosis factors  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (biodin; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (dianthin 32; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (diphtheria; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Pseudomonas  
 (endotoxin; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (endotoxins; anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Drug delivery systems  
 (immunoconjugates; anti-tissue factor antibody-antitumor  
agent conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents))
- IT Drug delivery systems  
 (immunotoxins; anti-tissue factor antibody-antitumor agent

- conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Peptides, biological studies  
Polyoxalkylenes, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (linking agents; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Drug delivery systems  
 (liposomes; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (luffin; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (momorcochin; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (momordins; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Antibodies  
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses)  
 (monoclonal; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (saporins; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Albumins, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (serum, human, serum Albumin, linking agents; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (toxin A; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT Proteins, specific or class  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (trichokirin; anti-tissue factor antibody-antitumor agent conjugates or anti-tissue factor antibody-toxin conjugates with linking agents)
- IT 75037-46-6DP, Gelonin, conjugates with anti-tissue factor antibodies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); THU (Therapeutic use);

- BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents)
- IT 9035-58-9, Blood-coagulation factor III  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents)
- IT 50-07-7D, Mitomycin C, conjugates with anti-tissue factor  
antibodies 50-91-9D, 5-Fluoro-2'-deoxyuridine,  
conjugates with anti-tissue factor antibodies  
 54-62-6D, Aminopterin, conjugates with anti-tissue factor  
antibodies 57-22-7D, Vincristine, conjugates with  
 anti-tissue factor antibodies 59-05-2D, Methotrexate,  
conjugates with anti-tissue factor antibodies  
 147-94-6D, Cytosine arabinoside, conjugates with anti-tissue  
 factor antibodies 148-82-3D, Melphalan, conjugates  
 with anti-tissue factor antibodies 316-46-1D, 5-Fluorouridine,  
conjugates with anti-tissue factor antibodies  
 9014-02-2D, Neocarzinostatin, conjugates with anti-tissue factor  
antibodies 11056-06-7D, Bleomycin, conjugates with  
 anti-tissue factor antibodies 15663-27-1D, Cisplatinum,  
conjugates with anti-tissue factor antibodies  
 20830-81-3D, Daunorubicin, conjugates with anti-tissue factor  
antibodies 25316-40-9D, Adriamycin, conjugates with  
 anti-tissue factor antibodies 33069-62-4D, Paclitaxel,  
conjugates with anti-tissue factor antibodies  
 41575-94-4D, Carboplatin, conjugates with anti-tissue factor  
antibodies 53643-48-4D, Vindesine, conjugates with  
 anti-tissue factor antibodies 65988-88-7D, modeccin,  
conjugates with anti-tissue factor antibodies  
 95787-44-3D, Dodecandrin, conjugates with anti-tissue factor  
antibodies 114977-28-5D, Docetaxel, conjugates with  
 anti-tissue factor antibodies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-tissue factor antibody-antitumor agent  
conjugates or anti-tissue factor antibody-  
toxin conjugates with linking agents)
- IT 58-85-5, Biotin 585-84-2, cis-Aconitic acid 6041-98-1, Glutamic acid  
 dihydrazide 6539-14-6, 2-Imino thioliolane 6953-60-2, S-  
 Acetylmercaptosuccinic anhydride 9004-54-0, Dextran, biological studies  
 9044-05-7, Carboxymethyl dextran 25322-68-3, Polyethylene  
 glycol 37293-51-9, Aminodextran 58626-38-3 59012-54-3  
 68181-17-9, N-Succinimidyl 3-(2-pyridylidithio)propionate 79886-55-8  
 103708-10-7 103848-62-0 115088-06-7 115616-51-8 150244-18-1  
 158913-22-5  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (linking agents; anti-tissue factor antibody-  
antitumor agent conjugates or anti-tissue factor  
antibody-toxin conjugates with  
linking agents)
- IT 112263-86-2  
 RL: PRP (Properties)  
 (unclaimed protein sequence; anti-tissue factor antibody-  
chemotherapeutic agent conjugates)
- IT 25322-68-3, Polyethylene glycol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (linking agents; anti-tissue factor antibody-  
antitumor agent conjugates or anti-tissue factor

antibody-toxin conjugates with linking agents)  
 RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 18 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2001:701736 HCPLUS Full-text  
 DOCUMENT NUMBER: 137:37481  
 TITLE: Conjugation of anti-My9 antibody  
 to stealth monensin liposomes and the effect of  
conjugated liposomes on the cytotoxicity of  
 immunotoxin  
 AUTHOR(S): Sudhan Shaik, M.; Kanikkannan, N.; Singh, M.  
 CORPORATE SOURCE: Division of Pharmaceutics, Florida A&M University,  
 College of Pharmacy, Tallahassee, FL, 32307, USA  
 SOURCE: Journal of Controlled Release (2001), 76(3),  
 285-295  
 PUBLISHER: Elsevier Science Ireland Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 26 Sep 2001  
 AB The carboxylic ionophore, monensin, was successfully entrapped in stealth liposomes by employing the pH-gradient method (interior pH of liposomes 9.5; exterior pH 5.0-5.9). A maximum of 14% of monensin could be entrapped in stealth liposomes by this method. The stealth liposomes could be successfully freeze-dried having mean particle size varying between 197 and 223 nm. The stealth liposomes were conjugated to anti-My9 monoclonal antibody (targeted against CD 33 antigen) by a disulfide linkage with almost full retention of immunoreactivity. The method of conjugation of liposomes with the antibody did not alter the particle size of liposomes and resulted in only 10% leakage of monensin. In-vitro cytotoxicity studies showed that antibody-conjugated monensin liposomes (3.5+10-8 M monensin) potentiated the cytotoxicity of anti-My9 immunotoxin by a factor of 2070, in comparison to 360-fold potentiation observed with unconjugated monensin liposomes against human HL-60 promyelocytic leukemia cells. These results indicate that it is possible to enhance the in-vitro cytotoxicity of immunotoxin by several folds using antibody-conjugated monensin liposomes.

CC 63-5 (Pharmaceuticals)  
 Section cross-reference(s): 1  
 ST stealth monensin liposome antibody conjugate  
 immunotoxin cytotoxicity  
 IT Antitumor agents  
 Encapsulation  
 Human  
 Particle size  
(conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)  
 IT Ricins  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT Drug delivery systems

(immunotoxins; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT Drug delivery systems

(liposomes; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT Antibodies and Immunoglobulins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (monoclonal; conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT 17090-79-8, Monensin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

IT 57-88-5, Cholesterol, biological studies 63-89-8, Dipalmitoyl phosphatidylcholine 124-30-1, Stearylamine 145035-96-7, DSPE-PEG

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugation of anti-My9 antibody to stealth monensin liposomes and the effect of conjugated liposomes on the cytotoxicity of immunotoxin)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 19 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:790340 HCAPLUS Full-text

DOCUMENT NUMBER: 133:355211

TITLE: Death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer

INVENTOR(S): Ni, Jian; Gentz, Reiner L.; Yu, Guo-liang; Rosen, Craig A.

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 266 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

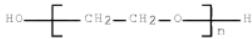
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066156	A1	20001109	WO 2000-US12041	20000504 <-
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2369371	A1	20001109	CA 2000-2369371	20000504 <-

EP 1196191	A1	20020417	EP 2000-930329	20000504 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO				
JP 2002543151	T	20021217	JP 2000-615040	20000504 <--
AU 2006246525	A1	20061221	AU 2006-246525	20061201 <--
PRIORITY APPLN. INFO.:				
			US 1999-132498P	P 19990504 <--
			US 1999-133238P	P 19990507 <--
			US 1999-148939P	P 19990813 <--
			AU 1998-67635	A 19980317 <--
			WO 2000-US12041	W 20000504 <--
			AU 2002-300603	A3 20020809 <--

- ED    Entered STN: 10 Nov 2000  
 AB    The present invention relates to novel Death Domain Containing Receptor-5 (DR5) proteins which are members of the tumor necrosis factor (TNF) receptor family, and have now been shown to bind TRAIL. In particular, isolated nucleic acid mols. are provided encoding the human DR5 proteins. DR5 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of DR5 activity, e.g., for treating graft-vs.-host disease, viral infection, cancer, and immune diseases.  
 IC    ICM A61K039-00  
       ICS A61K039-395; A61K045-00; A01N037-18; C07K014-52; C07K014-525;  
       C07K016-28  
 CC    63-3 (Pharmaceuticals)  
 Section cross-reference(s): 1, 2, 15  
 IT    Histocompatibility antigens  
       RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)  
          (MHC (major histocompatibility complex), class II; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)  
 IT    Lymphotoxin  
       Tumor necrosis factors  
       RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
          (antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)  
 IT    Antibodies  
       RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
          (chimeric; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)  
 IT    Anti-inflammatory agents  
       Antibiotics  
       Antitumor agents  
       Antiviral agents  
       Autoimmune disease  
       Dendritic cell  
       Gene therapy  
       Hybridoma  
       Immunodeficiency  
       Immunosuppressants  
       Molecular cloning  
       Molecular weight distribution  
          Peptide library  
       Plasmid vectors  
       Protein sequences  
       cDNA sequences  
          (death domain-containing receptor 5 and compns. for treatment of

- IT immunity-related diseases, viral diseases, and cancer)  
Polyoxyalkylenes, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Antibodies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Immunoglobulines  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (fragments; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Antibodies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (humanized; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Antibodies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (monoclonal; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Tumor necrosis factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 ( $\gamma$ , antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Tumor necrosis factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 ( $\gamma\alpha$ , antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT Tumor necrosis factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 ( $\gamma\beta$ , antibodies binding; death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT 25322-68-3  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- IT 25322-68-3  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (death domain-containing receptor 5 and compns. for treatment of immunity-related diseases, viral diseases, and cancer)
- RN 25322-68-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 20 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:645875 HCAPLUS Full-text  
 DOCUMENT NUMBER: 133:242572  
 TITLE: Cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compositions for removal of viruses from samples  
 INVENTOR(S): Boyd, Michael R.  
 PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA  
 SOURCE: PCT Int. Appl., 93 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

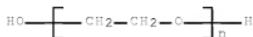
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053213	A2	20000914	WO 2000-US6247	20000310 <--
WO 2000053213	A3	20010118		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6428790	B1	20020806	US 1999-416434	19991012 <--
CA 2364500	A1	20000914	CA 2000-2364500	20000310 <--
AU 2000035231	A	20000928	AU 2000-35231	20000310 <--
AU 762704	B2	20030703		
EP 1162992	A2	20011219	EP 2000-913869	20000310 <--
EP 1162992	B1	20050525		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002538217	T	20021112	JP 2000-603702	20000310 <--
AT 296108	T	20050615	AT 2000-913869	20000310 <--
AU 2003252207	A1	20031106	AU 2003-252207	20031002 <--
AU 2003252207	B2	20050811		
PRIORITY APPLN. INFO.:				
		US 1999-267447	A 19990312 <--	
		US 1999-416434	A 19991012 <--	
		US 1995-429965	A3 19950427 <--	
		US 1996-638610	A3 19960426 <--	
		US 1997-969378	A2 19971113 <--	
		US 1997-969689	A2 19971113 <--	
		WO 2000-US6247	W 20000310 <--	

ED Entered STN: 15 Sep 2000

- AB The present invention provides, among other things, methods of removing virus from a sample, compns. treated in accordance with such methods, a composition comprising a naturally-occurring non- infectious HIV comprising gp120, a composition comprising a solid support matrix to which is attached a cyanovirin or a conjugate thereof, a conjugate comprising a cyanovirin coupled to an anti-cyanovirin antibody or at least one effector component, a composition comprising such a conjugate, methods of inhibiting prophylactically or therapeutically a viral infection of a host, methods of inducing an immune response to a virus in an animal, and a matrix-anchored anti-cyanovirin antibody.
- IC ICM A61K038-16  
ICS A61L002-00; A61F006-00; A61M031-00; A61K047-48; A61P031-18  
CC 63-3 (Pharmaceuticals)
- Section cross-reference(s): 1
- ST virus removal cyanovirin antibody
- IT Peptides, biological studies  
Proteins, specific or class  
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(antiviral; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Contraceptives  
(cervical caps; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Contraceptives  
(condoms; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT AIDS (disease)  
Animal tissue  
Animal virus  
Antiviral agents  
Blood  
DNA sequences  
Human immunodeficiency virus  
Magnetic field  
Membranes, nonbiological  
Nostoc ellipsosporum  
Organ, animal  
Protein sequences  
Semen  
Separation  
Sperm  
Sterilization and Disinfection  
Vaccines  
(cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Toxins  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Albumins, biological studies  
Polyoxalkylenes, biological studies  
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic

- use); BIOL (Biological study); PROC (Process); USES (Uses) (cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Proteins, specific or class  
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses) (cyanovirins; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Envelope proteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (gp120env, of HIV; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Proteins, specific or class  
 RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (immobilized; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Contraceptives  
 (sponges; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT Contraceptives  
 (vaginal rings; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT 184539-38-6  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses) (amino acid sequence; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT 9004-54-0, Dextran, biological studies 25322-68-3,  
Polyvinylene glycol  
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT 184539-37-5  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence) (nucleotide sequence; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT 184539-39-7  
 RL: PRP (Properties)  
 (unclaimed nucleotide sequence; cyanovirin conjugates, matrix-anchored cyanovirin, and anti-cyanovirin antibodies and related compns. for removal of viruses from samples)
- IT 184539-40-0  
 RL: PRP (Properties)  
 (unclaimed protein sequence; cyanovirin conjugates,

matrix-anchored cyanovirin, and anti-cyanovirin antibodies  
and related compns. for removal of viruses from samples)  
 IT 25322-68-3, Polyethylene glycol  
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic  
use); BIO (Biological study); PROC (Process); USES (Uses)  
 (cyanovirin conjugates, matrix-anchored cyanovirin, and  
 anti-cyanovirin antibodies and related compns. for removal of  
 viruses from samples)  
 RN 25322-68-3 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 21 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:683141 HCAPLUS Full-text  
 DOCUMENT NUMBER: 134:17695  
 TITLE: Intramolecular Sulfur-Oxygen Bond Formation  
 in Radical Cations of N-Acetylmethionine Amide  
 Schoneich, Christian; Pogocki, Dariusz; Wisniowski,  
 Pawel; Hug, Gordon L.; Bobrowski, Krzysztof  
 CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of  
 Kansas, Lawrence, KS, 66407, USA  
 SOURCE: Journal of the American Chemical Society (2000  
 ), 122(41), 10224-10225  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 134:17695  
 ED Entered STN: 29 Sep 2000  
 AB The authors report exptl. evidence for sulfide radical cation-amide  
 association during 1-e-oxidation of Met in model compound CH3C(O)-Met-NH2.  
 Using optical spectra of pulse-irradiated solns. and spectral deconvolution of  
 component radical spectra produced a spectral fit of exptl. data. These data  
 show that Met sulfide radical cations can associate with the oxygen of an  
 amide function, which may be the mechanism of action in  $\beta$ -amyloid peptides  
 associated with senile plaques in Alzheimer's disease.  
 CC 34-2 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 22  
 IT Radical ions  
 (cations; intramol. sulfur-oxygen bond formation in radical  
 cations of N-acetylmethionine amide)  
 IT Spectra  
 (deconvolution; intramol. sulfur-oxygen bond formation in  
 radical cations of N-acetylmethionine amide)  
 IT Oxidation  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)  
 IT Peptides, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)  
 IT Radicals, preparation

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)

IT 3352-57-6, Hydroxide radical, reactions 23361-37-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)

IT 308797-32-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)

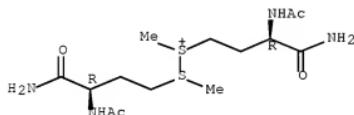
IT 308797-33-3P 609844-52-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)

IT 308797-33-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (intramol. sulfur-oxygen bond formation in radical cations of  
 N-acetylmethionine amide)

RN 308797-33-3 HCAPLUS

CN Sulfur(1+), bis[(3R)-3-(acetylamo)-4-amino-4-oxobutyl]dimethyldi- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 22 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:484947 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 129:127165  
 TITLE: Immunomodulator oligonucleotide compositions and methods for modulation of the expression of B7 protein  
 INVENTOR(S): Bennett, C. Frank; Vickers, Timothy A.  
 PATENT ASSIGNEE(S): Isis Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 121 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 8  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9829124	A1	19980709	WO 1997-US23270	19971216 <-- W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,

LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
US 6077833	A 20000620	US 1996-777266	19961231 <--
CA 2274581	A1 19980709	CA 1997-2274581	19971216 <--
CA 2274581	C 20040210		
AU 9857051	A 19980731	AU 1998-57051	19971216 <--
AU 720969	B2 20000622		
EP 957926	A1 19991124	EP 1997-953268	19971216 <--
EP 957926	B1 20050216		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 20000507833	T 20000627	JP 1998-530085	19971216 <--
JP 3471025	B2 20031125		
AT 289200	T 20050315	AT 1997-953268	19971216 <--
ES 2238083	T3 20050816	ES 1997-953268	19971216 <--
PRIORITY APPLN. INFO.:		US 1996-777266	A 19961231 <--
		WO 1997-US23270	WO 19971216 <--

ED Entered STN: 04 Aug 1998

AB Compns. and methods for the diagnosis, prevention and treatment of immune states and disorders amenable to treatment through modulation of T cell activation are provided. In accordance with preferred embodiments, oligonucleotides are provided which are specifically hybridizable with nucleic acids encoding B7 proteins.

IC ICM A61K031-70

ICS C07H021-00

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 2

IT Oligodeoxyribonucleotides

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(alkyl-linked; immunomodulator oligonucleotide compns. and  
methods for modulation of the expression of B7 protein)

IT Toxins

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(antibody conjugates; immunomodulator  
oligonucleotide compns. and methods for modulation of the expression of  
B7 protein)

IT Drug delivery systems

(carriers; immunomodulator oligonucleotide compns. and methods for  
modulation of the expression of B7 protein)

IT Antibodies

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic  
use); BIOL (Biological study); PROC (Process); USES (Uses)  
(conjugates with toxins; immunomodulator  
oligonucleotide compns. and methods for modulation of the expression of  
B7 protein)

IT Anti-inflammatory agents

Autoimmune disease

Drug delivery systems

Immunomodulators

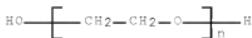
Immunosuppressants

Nucleic acid hybridization

(immunomodulator oligonucleotide compns. and methods for modulation of  
the expression of B7 protein)

IT Oligodeoxyribonucleotides

- RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (methylene(methylimino)-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT Oligodeoxyribonucleotides  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (methylphosphonate-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT Oligodeoxyribonucleotides  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (morpholino-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT Polyoxalkylenes, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (oligonucleotide derivs.; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT Oligodeoxyribonucleotides  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (polyamide-linked; immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT 57-10-3D, Hexadecanoic acid, oligonucleotide derivs., biological studies  
 57-88-5D, Cholesterol, oligonucleotide derivs. 81-25-4D, Cholic acid, oligonucleotide derivs. 124-30-1D, Octadecylamine, oligonucleotide derivs. 1249-81-6D, Thiocholesterol, oligonucleotide derivs.  
25322-68-3D, oligonucleotide derivs. 42862-38-4D, Adamantane acetic acid, oligonucleotide derivs.  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- IT 25322-68-3D, oligonucleotide derivs.  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (immunomodulator oligonucleotide compns. and methods for modulation of the expression of B7 protein)
- RN 25322-68-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 23 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:478950 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:127163  
 TITLE: Methods using immunosuppressive antitumor agent  
 liposomes for increasing the circulation half-life of  
 protein-based therapeutics  
 INVENTOR(S): Tardi, Paul G.; Swartz, Erik; Bally, Marcel B.;  
 Cullis, Pieter R.  
 PATENT ASSIGNEE(S): University of British Columbia, Can.  
 SOURCE: U.S., 15 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5780054	A	19980714	US 1996-588014	19960117 <--
			US 1996-588014	19960117 <--

PRIORITY APPLN. INFO.: ED Entered STN: 03 Aug 1998

AB Methods are disclosed for increasing the circulation half-life of protein-based therapeutics in a host, the methods comprising: (a) administering to the host an amount of a first liposome formulation comprising liposomes and an antineoplastic agent; and (b) administering to the host a second formulation comprising the protein-based therapeutic, wherein the amount of the first liposome formulation is sufficient to suppress an immune response to the protein-based therapeutic of the second formulation, thereby increasing the circulation half-life of the protein-based therapeutic.

IC ICM A61K009-127

INCL 424450000

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

IT Immunoglobulins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (G; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (conjugates, with antibodies; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (conjugates, with toxins; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Polyoxyalkylenes, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (distearyl phosphatidylethanolamine reaction products, liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Peptides, biological studies

Proteins, general, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antibodies  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (liposome coated with; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Drug delivery systems  
 (liposomes; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Drug delivery systems  
 (prodrugs; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT Antigens  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (tumor-associated, antibody to; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

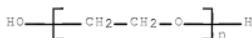
IT 25104-18-1D, Polylysine, conjugates with transferrin DNA  
 38000-06-5D, Polylysine, conjugates with transferrin DNA  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT 4537-76-2D, Distearoyl phosphatidylethanolamine, PEG reaction products 25322-68-3D, PEG, distearoyl phosphatidylethanolamine reaction products 113846-31-4  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

IT 25322-68-3D, PEG, distearoyl phosphatidylethanolamine reaction products  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (liposome including; immunosuppressive antitumor agent liposomes for increasing circulation half-life of protein-based therapeutics)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L147 ANSWER 24 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997:318181 HCPLUS Full-text  
 DOCUMENT NUMBER: 126:290381  
 TITLE: Recombinant proteins having multiple disulfide bonds and thiol-substituted conjugates thereof  
 INVENTOR(S): Leung, Shui-on; Griffiths, Gary L.  
 PATENT ASSIGNEE(S): Immunomedics, Inc., USA; Leung, Shui-on; Griffiths,

Gary L.  
 SOURCE: PCT Int. Appl., 70 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9711370	A1	19970327	WO 1996-US14832	19960920 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI				
CA 2232601	A1	19970327	CA 1996-2232601	19960920 <--
AU 9671604	A	19970409	AU 1996-71604	19960920 <--
AU 702975	B2	19990311		
EP 861440	A1	19980902	EP 1996-933032	19960920 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11514223	T	19991207	JP 1996-512815	19960920 <--
PRIORITY APPLN. INFO.:			US 1995-4169P	P 19950922 <--
			WO 1996-US14832	W 19960920 <--

ED Entered STN: 19 May 1997

AB The present invention relates to recombinant antigen-binding proteins having multiple disulfide bonds useful for the preparation of immunoconjugates. In particular, this invention relates to recombinant antibodies comprising an IgG3 hinge region and lacking a CH2 constant domain. These mutated antibodies are used to bind a diagnostic or therapeutic agent through ≥1 reduced disulfide bonds in the antibody hinge region. Thus, the invention contemplates the use of such immunoconjugates in diagnosis and therapy.

ICM G01N033-53

ICS A61K039-395; C07K016-00

CC 9-10 (Biochemical Methods)

Section cross-reference(s): 8, 14, 15

ST recombinant antibody immunoconjugate prepn diagnosis  
immunotherapy; mutated antibody binding antigen tumor  
infection

IT Immunoglobulins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(G3, hinge region, immunoconjugates containing; recombinant  
antibodies with multiple disulfide bonds for  
immunoconjugate preparation)

IT Onium compounds

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(acridinium, esters, immunoconjugates containing; recombinant  
antibodies with multiple disulfide bonds for  
immunoconjugate preparation)

IT Luminescent substances

(bioluminescent; recombinant antibodies with multiple  
disulfide bonds for immunoconjugate preparation)

IT Peptides, biological studies

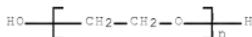
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(cysteine-containing, mutated antibody conjugates;  
recombinant antibodies with multiple disulfide bonds

- for immunoconjugate preparation)
- IT Cardiovascular system
  - (disease; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Antibacterial agents
- Antitumor agents
- Antiviral agents
- Drugs
- Fungicides
- Immunomodulators
- Protozoacides
  - (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Aequorins
- Allophycocyanins
- Enzymes, biological studies
- Phycocyanins
- Phycoerythrins
  - RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
    - (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Peptides, biological studies
- Polymers, biological studies
- Radionuclides, biological studies
- Radionuclides, biological studies
  - Toxins
    - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
      - (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Drug delivery systems
  - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
    - (immunoconjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Scintigraphy
  - (immonoscintigraphy; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Heart, disease
  - (infarction; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Polyoxyalkylenes, biological studies
  - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
    - (maleimide deriv, mutated antibody conjugates;
    - recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Antibodies
  - RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
    - (monoclonal, recombinant; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Anthracyclines
  - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
    - (mutated antibody conjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Radionuclides, biological studies
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (mutated antibody conjugates; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Carbohydrates, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (mutated antibody containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Gene  
 RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (mutated antibody-encoding; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Alkylating agents, biological  
 Chemiluminescent substances  
 Diagnosis  
 Dyes  
 Fluorescent substances  
 Genetic vectors  
 Immunotherapy  
 Infection  
 Neoplasm  
 Paramagnetic materials  
 Plasmids  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Antigens  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Radionuclides, biological studies  
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Thiols (organic), reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Antibodies  
 RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (recombinant; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Proteins, general, biological studies  
 RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (recombinant; recombinant proteins with multiple disulfide bonds and their thiol-substituted conjugates)
- IT Bond  
 (sulfur-sulfur, proteins containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT Antigens  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (tumor-associated; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 7440-57-5D, Gold, immunoconjugates containing, biological studies  
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

- (colloidal; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 22559-71-3D, Acridinium, salts  
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (immunoconjugates containing; recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 81-88-9D, immunoconjugates containing 144-62-7D, Ethanedioic acid, esters, immunoconjugates containing, biological studies 288-32-4D, Imidazole, immunoconjugates containing 521-31-3D, Luminol, immunoconjugates containing 643-79-8D, o-Phtalaldehyde, immunoconjugates containing 2591-17-5D, Luciferin, immunoconjugates containing 3682-14-2D, Isoluminol, immunoconjugates containing 9001-37-0D, Glucose oxidase, immunoconjugates containing 9001-78-9D, immunoconjugates containing 9003-99-0D, Peroxidase, immunoconjugates containing 9014-00-0D, Luciferase, immunoconjugates containing  
 9031-11-2D,  $\beta$ -Galactosidase, immunoconjugates containing 27072-45-3D, FITC, immunoconjugates containing 38183-12-9D, Fluorescamine, immunoconjugates containing  
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 305-03-3, Chlorambucil 189120-84-1  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 52-90-4, Cysteine, reactions 55-86-7, Nitrogen mustard 60-23-1, Cysteamine 60-24-2, Mercaptoethanol 70-18-8, GSH, reactions 505-60-2, Sulfur mustard 3483-12-3, Dithiothreitol 6892-68-8, Dithioerythritol 73902-98-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 189035-06-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds for immunoconjugate preparation)
- IT 59-05-2DP, Methotrexate, mutated antibody conjugates  
 68-76-8DP, Trenimon, mutated antibody conjugates  
 9013-20-1DP, Streptavidin, mutated antibody conjugates  
 10098-91-6DP, Yttrium-90, mutated antibody conjugates, biological studies 14133-76-7DP, Technetium-99, mutated antibody conjugates, biological studies 14378-26-8DP, Rhenium-188, mutated antibody conjugates, biological studies 15750-15-9DP, Indium-111, mutated antibody conjugates, biological studies 15760-04-0DP, Silver-111, mutated antibody conjugates, biological studies 23214-92-8DP, mutated antibody conjugates 25322-68-3DP, maleimide deriv, mutated antibody conjugates 73902-98-4DP, conjugate with cyanomorpholino anthracycline, mutated antibody conjugates 88254-07-3DP, conjugate with bromoacetic acid hydrazide, mutated antibody conjugates 88254-07-3DP, mutated antibody conjugates 113440-58-7DP, Calicheamicin, mutated antibody conjugates 114797-28-3DP, Esperamycin, mutated antibody conjugates 189035-04-9DP, conjugate with cyanomorpholino anthracycline, mutated

antibody conjugates 189035-05-0DP, mutated  
antibody conjugates  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds  
 for immunoconjugate preparation)  
 IT 7440-42-8D, Boron, addends, immunoconjugates containing, biological studies  
 10028-17-8D, Tritium, immunoconjugates containing, biological studies  
 10043-49-9D, Gold-198, immunoconjugates containing, biological studies  
 10043-66-0D, Iodine-131, immunoconjugates containing, biological studies  
 12585-85-2D, Positron, immunoconjugates containing 14119-09-6D, Gallium-67,  
 immunoconjugates containing, biological studies 14158-31-7D, Iodine-125,  
 immunoconjugates containing, biological studies 14596-37-3D, Phosphorus-32,  
 immunoconjugates containing, biological studies 14762-75-5D, Carbon-14,  
 immunoconjugates containing, biological studies 14998-63-1D, Rhenium-186,  
 immunoconjugates containing, biological studies 15117-53-0D, Sulfur-35,  
 immunoconjugates containing, biological studies 15715-08-9D, Iodine-123,  
 immunoconjugates containing, biological studies 15755-39-2D, Astatine-211,  
 immunoconjugates containing, biological studies 15757-86-5D, Copper-67,  
 immunoconjugates containing, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds  
 for immunoconjugate preparation)  
 IT 25322-68-3DP, maleimide deriv, mutated antibody conjugates  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (recombinant antibodies with multiple disulfide bonds  
 for immunoconjugate preparation)  
 RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 25 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997:44674 HCPLUS Full-text  
 DOCUMENT NUMBER: 126:65386  
 TITLE: Preparation of antitumor toxin complexes  
 INVENTOR(S): Suzawa, Toshiyuki; Yamasaki, Motoo; Nagamura, Satoru;  
 Saito, Hiromitsu; Ohta, So; Hanai, Nobuo  
 PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 78 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635451	A1	19961114	WO 1996-JP1241	19960510 <--

W: CA, JP, US  
 RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2220339	A1	19961114	CA 1996-2220339	19960510 <--
EP 867190	A1	19980930	EP 1996-913722	19960510 <--
EP 867190	B1	20071226		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 3871713	B2	20070124	JP 1996-533951	19960510 <--
AT 381948	T	20080115	AT 1996-913722	19960510 <--
US 6103236	A	20000815	US 1997-981416	19971110 <--
US 6638509	B1	20031028	US 2000-500243	20000208 <--
PRIORITY APPLN. INFO.:				
JP 1995-111933 A 19950510 <--				
WO 1996-JP1241 W 19960510 <--				
US 1997-981416 A3 19971110 <--				

ED Entered STN: 22 Jan 1997

AB A toxin complex is prepared by bonding a residue of a compound having target cell affinity and a residue of toxin via a spacer containing a polyalkylene glycol and a dipeptide. The compds. which show cell affinity include tumor-specific antibody and its fragments. For example, HO- PEG-Ala-Val-adriamycin reaction products with NL-1 (acute lymphocytic leukemia antibody) was prepared and its antiproliferative effect against Daudi Burkitt's lymphoma cells was tested.

IC ICM A61K039-44

ICS C07K017-06

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

ST antitumor antibody spacer complex prepn; adriamycin antibody PEG dipeptide complex prepn

IT Antitumor agents

Drug targeting

(preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

IT Polyoxalkylenes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(reaction products, with neoplasm inhibitors; preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

IT 20830-81-0P, Daunorubicin, reaction products with PEG-Ala-Val-OH derivative and antibody 25316-40-9DP, Adriamycin,

reaction products with PEG-Ala-Val-OH derivative and antibody 185218-46-6DP, reaction products with adriamycin and

antibody 185218-48-8DP, reaction products with adriamycin and antibody 185218-50-2DP, reaction products with adriamycin and antibody 185218-52-4DP, reaction products with PEG-Ala-Val-OH derivative and antibody 185218-65-9DP, reaction

products with PEG-Ala-Val-OH derivative and antibody 185218-74-0DP, reaction products with KM-641 antibody

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of antitumor toxin complex via spacer containing polyalkylene glycol and dipeptide)

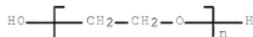
IT 100-02-7, 1-Hydroxy-4-nitrobenzene, reactions 100-39-0, Benzyl bromide

106-93-4, 1,2-Dibromoethane 107-09-5, 2-Bromoethylamine 109-64-8,

1,3-Dibromopropane 134-96-3, 4-Hydroxy-3,5-dimethoxybenzaldehyde

501-53-1, Benzyloxycarbonyl chloride 537-73-5 2812-46-6 2899-60-7

3401-36-3 6959-47-3, Picolyl chloride hydrochloride 13518-40-6  
25322-68-3 146940-68-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of antitumor toxin complex via spacer  
 containing polyalkylene glycol and dipeptide)  
 IT 6527-32-8P 16980-82-8P 26403-74-7P, Polyethylene  
glycol monobenzyl ether 29375-30-2P 53089-97-7P 53844-02-3P  
 60166-68-9P 62054-92-6P 185218-31-9P 185218-34-2P 185218-38-6P  
 185218-42-2P 185218-44-4P 185218-52-4P 185218-55-7P 185218-57-9P  
 185218-58-0P 185218-59-1P 185218-60-4P 185218-61-5P 185218-62-6P  
 185218-64-8P 185218-65-9P 185218-66-0P 185218-67-1P 185218-68-2P  
 185218-69-3P 185218-70-6P 185218-71-7P 185218-72-8P 185218-73-9P  
 185218-74-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of antitumor toxin complex via spacer  
 containing polyalkylene glycol and dipeptide)  
 IT 25322-68-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of antitumor toxin complex via spacer  
 containing polyalkylene glycol and dipeptide)  
 RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 26 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:494753 HCPLUS Full-text  
 DOCUMENT NUMBER: 125:151189  
 TITLE: Therapeutic conjugates of toxins  
 and drugs for cancer and infection treatment  
 INVENTOR(S): Hansen, Hans J.; Griffiths, Gary L.; Lentine-jones,  
 Anastasia; Goldenberg, David M.  
 PATENT ASSIGNEE(S): Immunomedics, Inc., USA  
 SOURCE: U.S., 7 pp., Cont.-in-part of U.S. 5,328,679.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 9  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5541297	A	19960730	US 1992-882177	19920511 <--
US 5061641	A	19911029	US 1988-176421	19880401 <--
US 5128119	A	19920707	US 1989-392280	19890810 <--
CA 1335267	C	19950418	CA 1989-615461	19890929 <--
AU 9059249	A	19910108	AU 1990-59249	19900611 <--
AU 647028	B2	19940317		
JP 05500800	T	19930218	JP 1990-509837	19900611 <--
IL 113168	A	19960723	IL 1990-113168	19900611 <--
ZA 9004521	A	19910327	ZA 1990-4521	19900612 <--
AU 9065214	A	19910418	AU 1990-65214	19900918 <--
AU 640698	B2	19930902		

JP 04505455	T	19920924	JP 1990-514034	19900918 <--
JP 07023326	B	19950315		
US 5328679	A	19940712	US 1991-760466	19910917 <--
NO 9104877	A	19920204	NO 1991-4877	19911211 <--
NO 9200853	A	19920304	NO 1992-853	19920304 <--
FI 9201146	A	19920317	FI 1992-1146	19920317 <--
US 5514363	A	19960507	US 1993-1419	19930107 <--
WO 9323062	A1	19931125	WO 1993-US4136	19930507 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 651646	A1	19950510	EP 1993-910988	19930507 <--
EP 651646	B1	20030903		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08500084	T	19960109	JP 1993-518731	19930507 <--
JP 2942356	B2	19990830		
CA 2118032	C	19980929	CA 1993-2118032	19930507 <--
EP 1283059	A2	20030212	EP 2002-79619	19930507 <--
EP 1283059	A3	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 248858	T	20030915	AT 1993-910988	19930507 <--
PT 651646	T	20031231	PT 1993-910988	19930507 <--
ES 2208639	T3	20040616	ES 1993-910988	19930507 <--
US 5601825	A	19970211	US 1995-452131	19950526 <--
PRIORITY APPLN. INFO.:				
US 1988-176421 A1 19880401 <--				
US 1989-364373 B2 19890612 <--				
US 1989-392280 A2 19890810 <--				
US 1989-408241 B2 19890918 <--				
US 1990-518707 B2 19900507 <--				
US 1990-581913 B2 19900913 <--				
US 1991-760466 A2 19910917 <--				
IL 1990-94690 A3 19900611 <--				
WO 1990-US3142 A 19900611 <--				
WO 1990-US5196 A 19900918 <--				
US 1992-882177 A 19920511 <--				
EP 1993-910988 A3 19930507 <--				
WO 1993-US4136 W 19930507 <--				

ED Entered STN: 20 Aug 1996

AB Conjugates useful in cancer or infectious disease therapy comprise a drug or modified toxin (a native toxin devoid of a functioning receptor-binding domain) and a protein which reacts with a substance associated with a targeted cell or pathogen. The targeted substance internalizes the conjugate into the cell cytoplasm, and the drug or toxin kills the cell. The protein prior to conjugation has  $\geq 1$  SH group which becomes a site for conjugation to the toxin or drug. Thus, the F(ab')<sup>2</sup> fragment of murine anti-B cell lymphoma antibody LL-2 was conjugated with an activated PEG-peptide derivative linker, and the product was reduced with DTT and reacted with an activated Pseudomonas exotoxin which was modified by removal of the Ia binding domain; the resulting therapeutic agent was purified by gel chromatog.

IC ICM C07K016-46  
ICS A61K039-395

INCL 530391700

CC 63-6 (Pharmaceuticals)

ST toxin immunoconjugate cancer infection therapy

IT Leukemia

(antibodies to cells of, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Carcinoma  
Lymphoma  
Myeloma

- Protozoa
- Sarcoma  
 (antibodies to, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Pseudomonas  
 (exotoxin of, modified, conjugate with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Toxins  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (receptor-binding domain-deficient, antibody conjugates; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Linking agents
- Neoplasm inhibitors  
 (therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Antibodies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (to protozoa or tumor-associated antigens, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Proteins, specific or class  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (PAP (pokeweed antiviral protein), conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Polysaccharides, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, with antibody and drug or toxin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Abrins
- Ricins  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Toxins  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (diphtheria, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Biological transport  
 (endocytosis, therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Toxins

- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (exo-, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Sialoglycoproteins  
 RL: (Biological study, unclassified); BIOL (Biological study)  
 (gp120env, of HIV, recombinant monoclonal antibody to, Fab' fragment of, conjugate with puromycin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Virus, animal  
 (human immunodeficiency, infection with, treatment of; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Pharmaceutical dosage forms  
 (immunoconjugates, therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Neoplasm inhibitors  
 (lymphoma, therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Peptides, biological studies  
 RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (lysine-containing, linkers; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Alcohols, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyhydric, conjugates, with antibody and drug or toxin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Proteins, specific or class  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (saporins, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Antigens  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (tumor-associated, antibodies to, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT Toxins  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 ( $\alpha$ -, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)
- IT 75037-46-6, Gelonin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT 541-59-3, Maleimide  
 RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (linker; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT 53-79-2D, Puromycin, immunoconjugates 66-81-9D, Cycloheximide, immunoconjugates 9001-99-4D, RNase, immunoconjugates 9004-54-0D, Dextran, conjugates with antibody and drug or toxin 25322-68-3D, PEG, conjugates with antibody and drug or toxin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT 25322-68-3D, PEG, conjugates with antibody and drug or toxin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (therapeutic conjugates of toxins and drugs for cancer and infection treatment)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 27 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1994:62291 HCPLUS Full-text  
 DOCUMENT NUMBER: 120:62291  
 TITLE: Therapeutic conjugates of toxins and drugs  
 INVENTOR(S): Hansen, Hans J.; Griffiths, Gary L.; Lentine-Jones, Anastasia; Goldenberg, David M.  
 PATENT ASSIGNEE(S): Immunomedics, Inc., USA  
 SOURCE: PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 9  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323062	A1	19931125	WO 1993-US4136	19930507 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5541297	A	19960730	US 1992-882177	19920511 <--
EP 651646	A1	19950510	EP 1993-910988	19930507 <--
EP 651646	B1	20030903		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08500084	T	19960109	JP 1993-518731	19930507 <--
JP 2942356	B2	19990830		
AT 248858	T	20030915	AT 1993-910988	19930507 <--

PRIORITY APPLN. INFO.:

US	1992-882177	A	19920511 <--
US	1988-176421	A1	19880401 <--
US	1989-364373	B2	19890612 <--
US	1989-392280	A2	19890810 <--
US	1989-408241	B2	19890918 <--
US	1990-518707	B2	19900507 <--
US	1990-581913	B2	19900913 <--
US	1991-760466	A2	19910517 <--
WO	1993-US4136	W	19930507 <--

ED Entered STN: 05 Feb 1994

AB A conjugate useful in cancer or infectious disease therapy is a drug or a modified native toxin devoid of a functioning receptor binding domain, conjugated to a protein which reacts with a substance associated with a targeted cell or pathogen. The targeted substance (e.g. intracellular antigen, receptor, viral antigen) internalizes the conjugate into the cell cytoplasm, thus killing the cell. The protein prior to conjugation has ≥1 SH group which becomes a site for conjugation to the toxin or drug. The protein may be a hormone, lymphokine, growth factor, albumin, enzyme, immunomodulator, receptor, antibody, etc. The conjugate may be coupled with a polysaccharide, polyol, or PEG to make it less immunogenic. Thus, an antibody to a tumor-associated antigen was reduced, converted to the F(ab')<sup>2</sup> fragment, and coupled to (1) a peptide linker- PEG conjugate and (2) a modified Pseudomonas exotoxin lacking the Ia binding domain for treatment of chemotherapy-refractory B-cell lymphoma.

IC ICM A61K037-00

ICS A61K037-04; C07K015-28; C07K015-14

CC 63-6 (Pharmaceuticals)

ST toxin conjugate cancer infection treatment;  
immunoconjugate toxin cancer treatment

IT Cytoplasm

Microorganism

Virus, animal

(antigen of, drug or toxin conjugate with protein  
targeted to, for cancer and infection treatment)

IT Immunomodulators

Animal growth regulators

Antibodies

Enzymes

Hormones

Immunoglobulins

Lymphokines and Cytokines

Receptors

RL: BIOL (Biological study)  
(conjugates with drugs and toxins, for cancer and  
infection treatment)IT AbrinsRicinsToxinsRL: BIOL (Biological study)  
(conjugates with proteins, for cancer and infection  
treatment)

IT Antigens

RL: BIOL (Biological study)  
(drug or toxin conjugate with protein targeted to,  
for cancer and infection treatment)IT Pseudomonas(exotoxin of, conjugates with proteins, for cancer and  
infection treatment)

IT Mercapto group

(of protein, drug or toxin conjugation to, for

- cancer and infection treatment)
- IT Bactericides, Disinfectants, and Antiseptics
- Neoplasm inhibitors
- Protozoacides
- Virucides and Virustats  
(protein conjugates, for targeted therapy)
- IT Leukemia  
(tumor-associated antigen of cells of, drug or toxin conjugate with protein targeted to)
- IT Carcinoma
- Lymphoma
- Myeloma
- Sarcoma  
(tumor-associated antigen of, drug or toxin conjugate with protein targeted to)
- IT Neoplasm inhibitors  
(B-cell leukemia, protein conjugates, for targeted therapy)
- IT Neoplasm inhibitors  
(B-cell lymphoma, protein conjugates, for targeted therapy)
- IT Proteins, specific or class
- RL: BIOL (Biological study)  
(PAP ( pokeweed antiviral protein), conjugates with proteins, for cancer and infection treatment)
- IT Polysaccharides, compounds
- RL: BIOL (Biological study)  
(conjugates, with drugs and proteins and toxins, for cancer and infection treatment)
- IT Albumins, compounds  
Peptides, compounds
- Proteins, specific or class
- RL: BIOL (Biological study)  
(conjugates, toxins\*\*\*, for cancer and infection treatment Peptides,)
- IT Toxins
- RL: BIOL (Biological study)  
(diphtheria, conjugates with proteins, for cancer and infection treatment)
- IT Proteins, specific or class
- RL: PRP (Properties)  
(disulfide-containing, reduction and conjugation of, with drug or toxin for cancer and infection treatment)
- IT Toxins
- RL: BIOL (Biological study)  
(exo-, conjugates with proteins, for cancer and infection treatment)
- IT Sialoglycoproteins
- RL: BIOL (Biological study)  
(gp120env, of HIV, monoclonal antibody to, conjugates with puromycin, for infection treatment)
- IT Virus, animal  
(human immunodeficiency, infection with, treatment of, with monoclonal antibody-puramycin conjugate)
- IT Pharmaceutical dosage forms  
(immunoconjugates, with proteins, for cancer and infection treatment)
- IT Pharmaceutical dosage forms  
(immunotoxins, for cancer and infection treatment)
- IT Neoplasm inhibitors  
(lymphoma, protein conjugates, for targeted therapy)
- IT Antibodies
- RL: BIOL (Biological study)

(monoclonal, conjugates with drugs and toxins, for cancer and infection treatment)

IT Alcohols, compounds  
 RL: BIOL (Biological study)  
 (polyhydric, conjugates, with drugs and proteins and toxins, for cancer and infection treatment)

IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (saporins, conjugates with proteins, for cancer and infection treatment)

IT Antigens  
 RL: BIOL (Biological study)  
 (tumor-associated, drug or toxin conjugate with protein targeted to, for cancer and infection treatment)

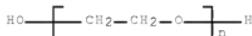
IT Toxins  
 RL: BIOL (Biological study)  
 ( $\alpha$ -, conjugates with proteins, for cancer and infection treatment)

IT 53-79-2D, Puromycin, conjugates with proteins 66-81-9D,  
 Cycloheximide, conjugates with proteins 9001-99-4D,  
 Ribonuclease, conjugates with proteins 9004-54-0D, Dextran,  
conjugates with drugs and proteins and toxins  
 25322-68-3D, PEG, conjugates with drugs and  
 proteins and toxins 75037-46-6D, Gelonin, conjugates  
 with proteins  
 RL: BIOL (Biological study)  
 (for cancer and infection treatment)

IT 25322-68-3D, PEG, conjugates with drugs and  
 proteins and toxins  
 RL: BIOL (Biological study)  
 (for cancer and infection treatment)

RN 25322-68-3 HCPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 28 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1992:101914 HCPLUS Full-text  
 DOCUMENT NUMBER: 116:101914  
 ORIGINAL REFERENCE NO.: 116:17125a,17128a  
 TITLE: Antibody-albumin complexes for in vivo target localization for imaging and therapy  
 INVENTOR(S): Line, Bruce R.; Weber, Peter B.  
 PATENT ASSIGNEE(S): Albany Medical College, USA  
 SOURCE: PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----

WO 9118020	A1	19911128	WO 1991-US3512	19910517 <--
W: AU, CA, FI, JP, NO, SU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5216130	A	19930601	US 1990-525258	19900517 <--
AU 9181081	A	19911210	AU 1991-81081	19910517 <--
EP 607126	A1	19940727	EP 1991-912955	19910517 <--
R: DE, FR, GB, IT, NL				
PRIORITY APPLN. INFO.:			US 1990-525258	A 19900517 <--
			WO 1991-US3512	A 19910517 <--

ED Entered STN: 20 Mar 1992

AB Antibodies to a specific targeting mol. are linked via polysaccharide or polymer spacer arms to rapidly cleared, <sup>99m</sup>Tc-labeled submicron-sized, albumin microspheres to form a labeled macromol. complex for use in localizing targets within the body. These labeled albumin microspheres may be used to detect a variety of sites of clin. interest using noninvasive external imaging devices and may be employed to carry therapeutic agents to these sites. Thus, albumin microspheres were linked to diaminopolystyrene glycol and the amino termini were derivatized with S-acetylmercaptosuccinic anhydride. To this was added 5,5'-dithiobis(2-nitrobenzoic acid) to activate and protect the microsphere SH moieties. Antifibrin antibody Fab' fragment was added to the microsphere suspension and reacted at room temperature for 1 h. The complex then was exposed to stannous saccarate, washed, and lyophilized. Prior to use, <sup>99m</sup>Tc was added in N-purged isotonic saline for i.v. administration for localizing e.g. fibrin deposition.

IC ICM C07K015-14

ICS C07K017-08; C07K017-10; A01N031-14; A61K031-075; A61K031-715;  
A61K037-04; A61K039-44; A61K043-00; A61K049-00; C03B037-02;  
C07C043-11; C07C217-42; C12N001-02; C07F013-00; G01N033-534

CC 8-9 (Radiation Biochemistry)

ST albumin sensitization labeling immunoscintig; technetium 99m  
antibody albumin scintig

IT Bacteria

Pharmaceuticals

Virus

(antibody to, complexes with albumin and other substances, preparation of, for immunotargeting)

IT Toxins

RL: SPN (Synthetic preparation); PREP (Preparation)  
(antibody to, complexes with albumin and other substances, preparation of, for immunotargeting)

IT Thrombolytics

(complexes with albumins and other substances, preparation of, for immunotargeting)

IT Fibrins

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(deposition of, localization of, by immunoscintig., macromol.  
complexes for)

IT Lung, disease

(embolus, localization of, by immunoscintigraphy, macromol.  
complexes for)

IT Albumins, uses

RL: SPN (Synthetic preparation); PREP (Preparation)  
(microspheres, technetium-99m-labeled, complexes with  
antibody, preparation of, for immunoscintig.)

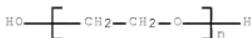
IT Antibodies

RL: SPN (Synthetic preparation); PREP (Preparation)  
(to fibrin, complexes with albumin microspheres,  
technetium-99m-labeled, preparation of, for immunoscintig.)

IT Thrombus and Blood clot

(venous, localization of, by immunoscintigraphy, macromol.

- complexes for)
- IT Polymers, compounds  
Polysaccharides, compounds  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(complexes, with albumins and other substances, preparation of,  
for immunoscintig.)
- IT Pharmaceutical dosage forms  
(immunoconjugates, antibody-albumin macromol.  
complexes)
- IT 7772-99-8, Tin chloride, biological studies  
RL: BIOL (Biological study)  
(in technetium-99m-labeled macromol. complex preparation for  
immunosci...)
- IT 14133-76-7DP, albumin-antibody complex labeled with  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of metastable, for immunoscintig.)
- IT 9004-54-0DP, Dextran, complexes with albumins and other  
substances 24991-53-5DP, macromol. complexes with  
25322-68-3DP, complexes with albumins and other  
substances  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, for immunoscintig.)
- IT 25322-68-3DP, complexes with albumins and other  
substances  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, for immunoscintig.)
- RN 25322-68-3 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 29 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:581372 HCAPLUS Full-text  
 DOCUMENT NUMBER: 115:181372  
 ORIGINAL REFERENCE NO.: 115:30960h,30961a  
 TITLE: Tumor-specific, cell surface-binding  
 monoclonal antibodies  
 INVENTOR(S): Freedman, Ralph S.; Ionnides, Constantin G.;  
 Tomasovic, Barbara J.; Patenia, Rebecca S.  
 PATENT ASSIGNEE(S): University of Texas System, USA  
 SOURCE: PCT Int. Appl., 80 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9109135	A1	19910627	WO 1990-US7496	19901218 <--
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				

AU 9171658	A 19910718	AU 1991-71658	19901218 <--
US 5434076	A 19950718	US 1992-862768	19920618 <--
PRIORITY APPLN. INFO.:		US 1989-452733	A2 19891218 <--
		WO 1990-US7496	A 19901218 <--

- ED Entered STN: 01 Nov 1991
- AB A process is provided for the preparation and use of gynecol. tumor diagnostic and antitumor agents. The process involves the pretreatment of a patient with a viral oncolyze and the establishment of B-cell human hybridomas capable of producing human monoclonal antibodies (MAbs) reactive with cell-surface epitopes of human gynecol. tumors. Also disclosed are methods for using the MAbs in the diagnosis and treatment of gynecol. malignancies. Two especially useful gynecol. hybridoma lines are disclosed which are derived from the process of the invention. Thus, cells from the lymph node of a patient with mucinous ovary carcinoma were fused with SPAZ4 cells (a heterohybridoma of mouse myeloma and human peripheral blood lymphocytes) using PEG 1500 to form the AC hybridoma cell line. The reactivity of human anti-ovarian surface-reacting MAb AC6C3 was tested with ovarian carcinoma cells and with a variety of nonovarian cell lines. MAb AC6C3 was also tested on cryostat sections of epithelial ovarian carcinoma specimens and compared to similar sections of other malignant as well as nonmalignant tissues. Immunopptn. with MAb AC6C3 identified a 32-kD band expressed on the surface of SKOV3 (ovarian carcinoma) cells.
- IC ICM C12P021-08  
ICS G01N033-574; A61K039-395; C12N005-00
- CC 15-3 (Immunochemistry)
- ST monoclonal antibody; tumor surface antigen; gynecol tumor  
monoclonal antibody; cervix tumor cell monoclonal  
antibody; ovary tumor cell monoclonal antibody; B cell  
human hybridoma
- IT Animal cell line  
(2774, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(431, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(962, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(CR, hybridoma, production of, with viral oncolyze, for production of  
monoclonal antibody to gynecol. tumor cell surface epitope)
- IT Animal cell line  
(CaOV3, monoclonal antibody to surface epitope of)
- IT Animal cell line  
(GB, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(MD435, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(MD436, monoclonal antibody to gynecol. tumor cell surface  
epitope reactivity with)
- IT Animal cell line  
(MDAH 2774, monoclonal antibody to surface epitope of)
- IT Animal cell line  
(SPAZ4, in hybridoma production for production of monoclonal antibody  
to gynecol. tumor cell surface epitope)
- IT Toxins  
RL: BIOL (Biological study)  
(conjugates with monoclonal antibody to gynecol.

tumor cell surface epitope, for targeting therapy)

IT Animal cell line  
 (gynecol. tumor, monoclonal antibody to surface epitope of)

IT Neoplasm  
 (gynecol., monoclonal antibody to surface epitope of cell of)

IT Animal cell line  
 (human cell-derived myeloma, in hybridoma production for production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Lymph gland  
 (lymphocyte of, for hybridoma production in production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Neoplasm inhibitors  
 (monoclonal antibody to gynecol. tumor cell surface epitope as, for gynecol. tumor)

IT Melanoma

Sarcoma  
 (monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Hybridoma  
 (of lymphocyte of peripheral blood or lymph node or bone marrow, in production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Virus  
 (oncolyzate, in production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Animal cell line  
 (A375, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (A431, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (AC, hybridoma, production of, for production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Animal cell line  
 (Daudi, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (JURKAT, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (K562, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (MRC-5, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Virus, animal  
 (Newcastle disease, gynecol. tumor cell infected with, oncolyzate from, in production of monoclonal antibody to gynecol. tumor cell surface epitope)

IT Animal cell line  
 (SK-UT-1, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (SKOV3, monoclonal antibody to surface epitope of)

IT Animal cell line  
 (SW48, monoclonal antibody to gynecol. tumor cell surface epitope reactivity with)

IT Animal cell line  
 (SW480, monoclonal antibody to gynecol. tumor cell surface

epitope reactivity with)  
 IT Animal cell line  
     (SW756, monoclonal antibody to surface epitope of)  
 IT Ovary, neoplasm  
     (carcinoma, cell line of, monoclonal antibody to surface  
         epitope of)  
 IT Uterus, neoplasm  
     (cervix, carcinoma, cell line of, monoclonal antibody to  
         surface epitope of)  
 IT Ricins  
     RL: BIOL (Biological study)  
         (conjugates, A chain of, with monoclonal antibody  
             to gynecol. tumor cell surface epitope)  
 IT Virus, animal  
     (influenza A, Puerto Rico, in production of monoclonal antibody  
         to gynecol. tumor cell surface epitope)  
 IT Lymphokines and Cytokines  
     RL: BIOL (Biological study)  
         (interleukin 2, viral oncolyzate combined with, in production of monoclonal  
             antibody to gynecol. tumor cell surface epitope)  
 IT Antibodies  
     RL: BIOL (Biological study)  
         (monoclonal, to gynecol. tumor cell surface epitope)  
 IT Antigens  
     RL: BIOL (Biological study)  
         (surface, monoclonal antibodies to, of gynecol. tumor cell)

L147 ANSWER 30 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:670168 HCPLUS Full-text  
 DOCUMENT NUMBER: 115:270168  
 ORIGINAL REFERENCE NO.: 115:45653a,45656a  
 TITLE: Monoclonal antibody-targeted superantigens:  
     a different class of antitumor agents  
 AUTHOR(S): Dohlstén, Mikael; Hedlund, Gunnar; Åkerblom, Eva;  
     Lando, Peter A.; Kalland, Terje  
 CORPORATE SOURCE: Kabi Pharm. Ther., Lund, S-223 63, Swed.  
 SOURCE: Proceedings of the National Academy of Sciences of the  
     United States of America (1991), 88(20),  
     9287-91  
 DOCUMENT TYPE: CODEN: PNASA6; ISSN: 0027-8424  
 LANGUAGE: Journal  
 English  
 ED Entered STN: 27 Dec 1991  
 AB The bacterial superantigen staphylococcal enterotoxin A (SEA) directs  
     cytotoxic T-lymphocytes (CTLs) expressing particular sequences of the T-cell  
     receptor (TCR) β-chain to lyse tumor cells expressing major histocompatibility  
     complex (MHC) class II molts., which serve as receptors for SEs. Chemical  
     conjugates of SEA and the colon carcinoma-reactive monoclonal antibodies  
     (mAbs) C215 or C242 mediate T-cell dependent destruction of colo carcinoma  
     cells lacking MHC class II molts. SEA was covalently linked to the mAbs C215  
     and C242 via a PEG-based hydrophilic spacer. The C215-SEA conjugate targeted  
     CD4+ as well as CD8+ CTLs to lyse a panel of colon carcinoma cells lacking MHC  
     class II molts. T-cell recognition of mAb-SEA conjugates was SEA-specific,  
     since SEA-selective T-cell lines with potent cytotoxic activity towards Raji  
     cells coated with SEA did not respond to the C215-SEA conjugate. Unconjugated  
     SEA did not induce T-cell lysis of MHC class II+ colon carcinoma cells by  
     efficiently directed CTLs against MHC class II+ Raji cells and certain  
     interferon-treated MHC class II+ colon carcinoma cells. SEA-mAb conjugates  
     may retain the SEA-related selectivity for certain TCR β-chain variable region

(V $\beta$ ) sequences but, in contrast to unconjugated SEA, may mediate the TCR interaction in a MHC class II-independent manner. The cytotoxic activity mediated by C215-SEA and C242-SEA conjugates was blocked by excess of C215 mAb and C242 mAb, resp., showing that the specificity in the targeting of mAb-SEA conjugates is defined by the antigen reactivity of the mAb. Bacterial superantigens may be successfully conjugated to mAb with preserved T-cell-activating capacity. The circumvention of MHC class II binding of SEAs by conjugation to mAb suggests that such conjugates may find general application as antitumor agents, taking advantage of extreme T-cell-activating potency of superantigens.

CC 1-6 (Pharmacology)

Section cross-reference(s): 63

ST bacterial enterotoxin antibody conjugate antitumor targeting; T lymphocyte enterotoxin antibody conjugate antitumor

IT Lymphocyte

(T-, enterotoxin A antibody conjugate activation of, major histocompatibility antigen class II expression and antitumor effects in colon carcinoma in relation to)

IT Neoplasm inhibitors

(carcinoma, enterotoxin A antibody conjugates as, in colon, T-lymphocyte activation by)

IT Toxins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(entero-, antibody conjugate of staphylococcal, T-lymphocyte activation by and antitumor action of)

IT Antigens

RL: BIOL (Biological study)  
(histocompatibility, class II, of colon carcinoma, enterotoxin A antibody conjugate antitumor effects in relation to expression of)

IT Antibodies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(monoclonal, staphylococcal enterotoxin A conjugate with, T-lymphocyte activation by and antitumor action of)

L147 ANSWER 31 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:100866 HCAPLUS Full-text

DOCUMENT NUMBER: 116:100866

ORIGINAL REFERENCE NO.: 116:16909a,16912a

TITLE: Crystal parameters and molecular replacement of an anticholera toxin peptide complex

AUTHOR(S): Shoham, Menachem; Proctor, Peter; Hughes, Diane; Baldwin, Eric T.

CORPORATE SOURCE: Sch. Med., Case West. Reserve Univ., Cleveland, OH, 44106, USA

SOURCE: Proteins: Structure, Function, and Genetics (1991), 11(3), 218-22

CODEN: PSFGEY; ISSN: 0887-3585

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Mar 1992

AB TE33 is a Fab fragment of a monoclonal antibody raised against a 15-residue long peptide (CTP3), corresponding in sequence to residues 50-64 of the cholera toxin B subunit. Crystals of the complex between TE33 and CTP3 have been grown from 20% (w/v) polyethylene glycol-8000 at pH 4.0. The crystals are orthorhombic, space group P21212, with unit cell dimensions a = 104.15, b

= 110.61, and c = 40.68 Å. X-ray data have been collected to a resolution of 2.3 Å. The asym. unit contains one mol. of Fab and one mol. of CTP3. The presence of CTP3 has been demonstrated by fluorescence quenching of the dissolved crystal after x-ray data collection. A mol. replacement solution was found based on the coordinates of DB3, an antiprogestrone Fab fragment.

CC 4-5 (Toxicology)

ST anticholera toxin peptide complex crystal  
structure

IT Crystal structure

(of cholera toxin B-subunit 15-amino acid-long peptide complex with monoclonal antibody to cholera toxin B-subunit 15-amino acid-long peptide)

IT Antibodies

RL: BIOL (Biological study)

(monoclonal, to cholera toxin B-subunit peptide, cholera toxin B-subunit peptide complexes  
with, crystal structure and mol. replacement parameters of)

IT 89157-28-8D, complexes with TE33

RL: BIOL (Biological study)

(crystal structure and mol. replacement parameters of)

L147 ANSWER 32 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:137344 HCPLUS Full-text

DOCUMENT NUMBER: 112:137344

ORIGINAL REFERENCE NO.: 112:23221a,23224a

TITLE: Human monoclonal anti-human immunodeficiency virus type 1 (anti-HIV-1) antibodies

INVENTOR(S): Katinger, Hermann; Von Baehr, Ruediger; Jungbauer, Alois; Forstmann, Tomas; Steindl, Franz J.; Grunow, Roland; Buchacher, Andrea

PATENT ASSIGNEE(S): CL Pharma A.-G., Austria

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8904370	A1	19890518	WO 1988-EP1072	19881114 <--
W: JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
EP 355140	A1	19900228	EP 1989-900809	19881114 <--
EP 355140	B1	19960320		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 02502251	T	19900726	JP 1989-500718	19881114 <--
AT 135743	T	19960415	AT 1989-900809	19881114 <--
US 5831034	A	19981103	US 1994-293842	19940822 <--
US 5753503	A	19980519	US 1994-347966	19941201 <--
PRIORITY APPLN. INFO.:			US 1987-120489	A 19871113 <--
			WO 1988-EP1072	W 19881114 <--
			US 1990-583505	B1 19900917 <--
			US 1991-693730	B1 19910430 <--
			US 1993-97170	B1 19930723 <--
			US 1993-105360	B1 19930810 <--

ED Entered STN: 13 Apr 1990

AB Human monoclonal antibodies which bind to envelope and/or core proteins of HIV-1 and to HIV-1-infected cells are produced and used to detect or treat HIV-1 infection. The monoclonal antibodies were prepared by fusing peripheral

blood lymphocytes from HIV-1 serum-pos. donors with HAT (hypoxanthine-aminopterin-thymidine)- sensitive fusion cells in the presence of PEG 1500 and DMSO. Hybrid cells were cloned, screened, etc. When monoclonal antibody 3D6 was covalently linked to the ricin A chain, the immunotoxin specifically killed HIV-1-infected H9 cells with a TCID50 (tissue culture ID of conjugate giving 50% of untreated control protein synthesis) <10 nM. 3D6 was conjugated to peroxidase and used in a competitive EIA to detect HIV-1 in blood serum.

IC ICM C12P021-00  
 ICS A61K039-42; G01N033-569

CC 15-3 (Immunochemistry)  
 Section cross-reference(s): 1, 9

ST human monoclonal antibody HIV1; immunodeficiency virus human monoclonal antibody; immunotoxin human immunodeficiency virus antibody ricin

IT Abrins  
Ricins  
 RL: BIOL (Biological study)  
 (A chain of, conjugates with human monoclonal antibody to human immunodeficiency virus type 1)

IT Cytotoxic agents  
 (conjugates with human monoclonal antibody to human immunodeficiency virus type 1)

IT Animal tissue culture  
 Blood analysis  
 (human immunodeficiency virus type 1 detection in, human monoclonal antibody for)

IT Immunodeficiency  
 (acquired immune deficiency syndrome, human immunodeficiency virus type 1 detection in blood serum by competitive EIA using peroxidase-human monoclonal antibody conjugate in relation to)

IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (core, of human immunodeficiency virus type 1, human monoclonal antibody to)

IT Toxins  
 RL: BIOL (Biological study)  
 (cyto-, conjugates with human monoclonal antibody to human immunodeficiency virus type 1)

IT Toxins  
 RL: BIOL (Biological study)  
 (diphtheria, A chain of, conjugates with human monoclonal antibody to human immunodeficiency virus type 1)

IT Animal cell  
 (disease, infection, with human immunodeficiency virus type 1, detection and treatment of, with human monoclonal antibodies)

IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (envelope, of human immunodeficiency virus type 1, human monoclonal antibody to)

IT Glycoproteins, specific or class  
 RL: BIOL (Biological study)  
 (gp120, of human immunodeficiency virus type 1, human monoclonal antibody to)

IT Glycoproteins, specific or class  
 RL: BIOL (Biological study)  
 (gp160, of human immunodeficiency virus type 1, human monoclonal antibody to)

IT Glycoproteins, specific or class  
 RL: BIOL (Biological study)  
 (gp41, of human immunodeficiency virus type 1, human monoclonal

antibody to)  
 IT Virus, animal  
 (human immunodeficiency 1, human monoclonal antibodies to)  
 IT Toxins  
 RL: BIOL (Biological study)  
 (immuno-, human monoclonal antibodies to human  
 immunodeficiency virus type 1 in)  
 IT Antibodies  
 RL: BIOL (Biological study)  
 (monoclonal, to human immunodeficiency virus type 1, human)  
 IT Antibodies  
 RL: BIOL (Biological study)  
 (monoclonal, neutralizing, to human immunodeficiency virus type 1,  
 human)  
 IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (p24, of human immunodeficiency virus type 1, human monoclonal  
antibody to)  
 IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (p55, of human immunodeficiency virus type 1, human monoclonal  
antibody to)  
 IT Proteins, specific or class  
 RL: BIOL (Biological study)  
 (p65, of human immunodeficiency virus type 1, human monoclonal  
antibody to)  
 IT 125988-68-3 125988-69-4  
 RL: BIOL (Biological study)  
 (human monoclonal antibody 3D6 to human immunodeficiency  
 virus type 1 binding to)

L147 ANSWER 33 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:112047 HCPLUS Full-text  
 DOCUMENT NUMBER: 112:112047  
 ORIGINAL REFERENCE NO.: 112:18794h,18795a  
 TITLE: Protein crosslinking reagents cleavable within  
 acidified intracellular vesicles  
 INVENTOR(S): Neville, D. M.; Srinivasachar, K.  
 PATENT ASSIGNEE(S): National Institutes of Health, USA  
 SOURCE: U. S. Pat. Appl., 54 pp. Avail. NTIS Order No.  
 PAT-APPL-6-204 163.  
 CODEN: XAXXAV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

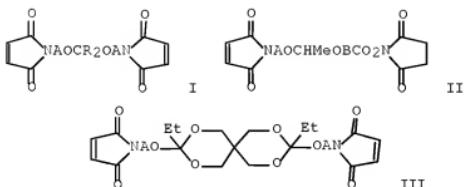
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 204163	A0	19890315	US 1988-204163	19880601 <--
US 5066490	A	19911119		
WO 8911867	A1	19891214	WO 1989-US2349	19890531 <--
W: AU, JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8937684	A	19900105	AU 1989-37684	19890531 <--
AU 620417	B2	19920220		
EP 417188	A1	19910320	EP 1989-906910	19890531 <--
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 03502098	T	19910516	JP 1989-506589	19890531 <--
PRIORITY APPLN. INFO.:			US 1988-204163	A 19880601 <--

**OTHER SOURCE(S):**

CASREACT 112:112047

ED Entered STN: 31 Mar 1990

GT



AB A biol. active substance (e.g. a cytotoxin, other drug, protein, enzyme, or nucleic acid) is delivered to cells (e.g. by receptor-mediated endocytosis) as a conjugate (e.g. an immunotoxin or prodrug) which can be cleaved within the cells under acidic conditions (e.g. at pH 5.4 in vesicles). The bifunctional crosslinking agent used in preparation of the conjugate is a ketal I [A = bridge unit, preferably  $(CH_2)_n$ ; n = 1-8; R = Cl-9 alkyl (preferably Me), (substituted) Ph], an acetal II [A as defined above; B = A,  $C_6H_4(CH_2)_n$ ], or an ortho ester III (A as above). These crosslinking agents can also be used to couple proteins reversibly to matrixes for synthetic and chromatog. purposes. Thus, I ( $A = CH_2CH_2$ ) (IV) was prepared by ketal exchange between N-(2-hydroxyethyl)maleimide and 2,2-dimethoxypropane. A nicked diphtheria toxin monomer was thiolated with iminothiolane and crosslinked to human T-cell surface antigen CD5 with IV. The toxicity of this conjugate toward target Jurkat cells was 50-fold greater than that of a similar conjugate prepared with a noncleavable crosslinker, bis(maleimidobutane).

CC 1=2 (Pharmacology)

Section cross-reference(s): 28

ST bifunctional crosslinker bioactive substance; toxin antibody conjugation bifunctional crosslinker; ketal bifunctional crosslinker; acetal bifunctional crosslinker; ortho ester bifunctional crosslinker

#### IT Bifunctional Cell membrane

(antigen CD5 of, of T-lymphocyte, antibodies to,  
conjugates with cytotoxins, preparation of, acid-hydrolyzable  
crosslinking agents for)

#### IT Antibodies

RL: SPN (Synthetic preparation); PREP (Preparation)  
(conjugates with cytotoxins, preparation of, acid-hydrolyzable  
crosslinking agents for)

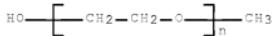
## IT Antigens

RL: SPN (Synthetic preparation); PREP (Preparation)  
(CD5, of T-lymphocyte cell membrane, antibodies to,  
conjugates with cytotoxins, preparation of, acid-hydrolyzable  
crosslinking agents for)

#### IT Lymphocyte

(T-, antigen CD5 of cell membrane of, antibodies to,

- conjugates with cytotoxins, preparation of, acid-hydrolyzable crosslinking agents for)
- IT Fetuins  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(asialo-, conjugates, with ricin, acid-hydrolyzable crosslinking agents for preparation of and immunotoxin inhibition by)
- IT Ricins  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(conjugates, with antibodies, preparation of, acid-hydrolyzable crosslinking-agents for)
- IT Transferins  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(conjugates, with crosslinking agents, intracellular acid-hydrolysis of)
- IT Toxins  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(diphtheria, antibody conjugates, preparation of, acid-hydrolyzable-crosslinking agents for)
- IT Toxins  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(immuno-, preparation of, acid-hydrolyzable crosslinking agents for)
- IT 9004-74-4, Monomethoxypolyethylene glycol  
RL: BIOL (Biological study)  
(activation and reaction with cysteamine and acid-hydrolyzable crosslinking agent, for conjugation with protein)
- IT 4472-81-5, 1,3-Dithiolan-2-imine  
RL: BIOL (Biological study)  
(protein thiolation with, for conjugation with acid-hydrolyzable crosslinking agent)
- IT 16904-32-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with PEG and acid-hydrolyzable crosslinking agent, for conjugation with protein)
- IT 9004-74-4, Monomethoxypolyethylene glycol  
RL: BIOL (Biological study)  
(activation and reaction with cysteamine and acid-hydrolyzable crosslinking agent, for conjugation with protein)
- RN 9004-74-4 HCPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -methyl- $\omega$ -hydroxy- (CA INDEX NAME)

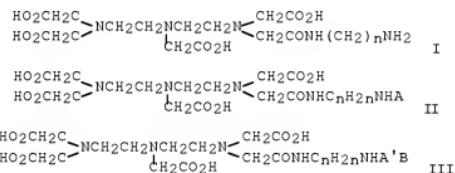


L147 ANSWER 34 OF 84 HCPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:231950 HCPLUS Full-text  
 DOCUMENT NUMBER: 112:231950  
 ORIGINAL REFERENCE NO.: 112:39034h,39035a  
 TITLE: Preparation of DTPA derivatives, radioactive metal complexes with the derivatives, and use of the complexes in diagnosis and therapy  
 INVENTOR(S): Kondo, Susumu; Kurami, Miki; Azuma, Makoto  
 PATENT ASSIGNEE(S): Nihon Medi-Physics Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 28 pp.  
 DOCUMENT TYPE: Patent  
 CODEN: EPXXDW

LANGUAGE : English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 345723	A2	19891213	EP 1989-110208	19890606 <--
EP 345723	A3	19910109		
EP 345723	B1	19940525		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
US 5094950	A	19920310	US 1989-362370	19890605 <--
DK 8902767	A	19891208	DK 1989-2767	19890606 <--
AU 8936039	A	19891214	AU 1989-36039	19890606 <--
AU 617816	B2	19911205		
AT 106075	T	19940615	AT 1989-110208	19890606 <--
CA 1331450	C	19940816	CA 1989-601896	19890606 <--
ES 2056150	T3	19941001	ES 1989-110208	19890606 <--
JP 02085239	A	19900326	JP 1989-145994	19890607 <--
JP 2815615	B2	19981027		
KR 126238	B1	19971226	KR 1989-7823	19890607 <--
US 5250702	A	19931005	US 1991-691989	19910426 <--
PRIORITY APPLN. INFO.:				
			JP 1988-139885	A 19880607 <--
			JP 1988-139886	A 19880607 <--
			US 1989-362370	A3 19890605 <--
			EP 1989-110208	A 19890606 <--

OTHER SOURCE(S): MARPAT 112:231950

ED Entered STN: 23 Jun 1990  
GI

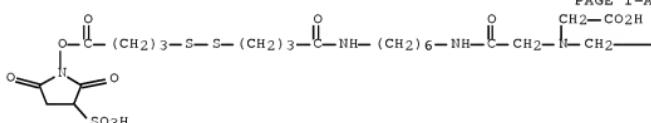
AB DTPA derivs. HO<sub>2</sub>CCH<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)CH<sub>2</sub>CONH(CH<sub>2</sub>)<sub>n</sub>NH<sub>3</sub> (I; n = 3-10), HO<sub>2</sub>CCH<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>2</sub>CO<sub>2</sub>H)CH<sub>2</sub>CONHNH<sub>2</sub>nNHA (II; n = 2-10; A = monovalent group formed by reacting 1 of the 2 reactive groups of a crosslinking reagent) and physiol. acceptable salts thereof, and III (n = 2-10; A = A'B; A' = bivalent linking group formed by reacting both reactive groups of a crosslinking reagent; B = polypeptide residue) (III) and physiol. acceptable salts thereof, are provided, as are III labeled with a radioactive metal. The radioactive metal complexes of III are useful as diagnostic and therapeutic agents. Thus, DTPA mono(6-aminohexyl)amide (preparation given) was reacted with 3,3'-dithiobis(sulfosuccinimidylpropanoate) and the product was conjugated to bovine IgG; the conjugate was further reacted with <sup>111</sup>InCl<sub>3</sub>. Biodistribution of the prepared complex in rats was determined

- IC ICM C07C103-50  
 ICS C07D207-48; A61K049-02  
 CC 8-9 (Radiation Biochemistry)  
 Section cross-reference(s): 23, 78  
 ST DTPA deriv radioactive metal complex prep; scintigraphy agent  
 prep DTPA deriv; radiotherapy DTPA deriv prep  
 IT Antibodies  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (DTPA reaction products, for scintigraphic and radiotherapeutic agent  
 preparation)  
 IT Myosins  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (myocardial, monoclonal antibody fragment to,  
conjugates with DTPA derivs., for scintigraphic and  
 radiotherapeutic agents preparation)  
 IT Heart, composition  
 (myosin of, monoclonal antibody fragment to,  
conjugates with DTPA derivs., for scintigraphic and  
 radiotherapeutic agents preparation)  
 IT Hormones  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (peptides, DTPA reaction products, for scintigraphic and  
 radiotherapeutic agent preparation)  
 IT Immunoglobulins  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (G, conjugates, with DTPA derivs., in scintigraphic and  
 radiotherapeutic agents preparation)  
 IT Antibodies  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (monoclonal, fragment, to myocardial myosin, conjugates with  
 DTPA derivs., for scintigraphic and radiotherapeutic agents preparation)  
 IT Antibiotics  
 (peptide, DTPA reaction products, for scintigraphic and  
 radiotherapeutic agent preparation)  
 IT Enzymes  
 Glycoproteins, specific or class  
Immunoglobulins  
 Lipoproteins  
Peptides, compounds  
 Proteins, specific or class  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (reaction products, with DTPA derivative, for scintigraphic and  
 radiotherapeutic agents preparation)  
 IT 10098-91-6D, Yttrium-90, DTPA derivative complexes 14378-26-8D,  
 Rhenium-188, DTPA derivative complexes 14998-63-1D, Rhenium-186,  
 DTPA derivative complexes 15092-94-1D, Lead-212, DTPA derivative  
complexes 15229-37-5D, Bismuth-211, DTPA derivative  
complexes 15766-00-4D, Samarium-153, DTPA derivative  
complexes  
 RL: BIOL (Biological study)  
 (for radiotherapeutic agents)  
 IT 14119-09-6D, Gallium-67, DTPA derivative complexes 14276-53-0D,  
 Copper-62, DTPA derivative complexes 14833-23-9D, Zinc-62, DTPA  
 derivative complexes 15750-15-9D, Indium-111, DTPA derivative  
complexes 15757-14-9D, Gallium-68, DTPA derivative complexes  
 RL: BIOL (Biological study)  
 (for scintigraphic agents)  
 IT 14133-76-7D, Technetium-99, DTPA derivative complexes  
 RL: BIOL (Biological study)  
 (metastable, for scintigraphic agents)

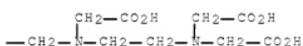
IT 127346-49-0DP, IgG conjugates, indium-111 complexes  
127346-50-3DP, IgG and anti-myocardial myosin monoclonal  
antibody fragment conjugates, indium-111  
complexes 127346-51-4DP, anti-myocardial myosin  
monoclonal antibody fragment conjugates  
127346-52-5DP, anti-myocardial myosin monoclonal antibody  
fragment conjugates 127346-53-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, in scintigraphic and radiotherapeutic agent preparation)

IT 127346-50-3DP, IgG and anti-myocardial myosin monoclonal  
antibody fragment conjugates, indium-111  
complexes 127346-51-4DP, anti-myocardial myosin  
monoclonal antibody fragment conjugates  
127346-52-5DP, anti-myocardial myosin monoclonal antibody  
fragment conjugates  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, in scintigraphic and radiotherapeutic agent preparation)

RN 127346-50-3 HCPLUS  
CN 24,25-Dithia-3,6,9,12,19-pentaazanonacosanoic acid, 3,6,9-  
tris(carboxymethyl)-29-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxyz]-11,20,29-  
trioxo- (9CI) (CA INDEX NAME)

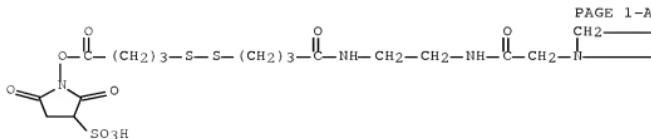


PAGE 1-A



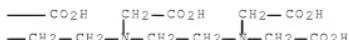
PAGE 1 - B

RN 127346-51-4 HCPLUS  
CN 20,21-Dithia-3,6,9,12,15-pentaazapentacosanoic acid, 3,6,9-tris(carboxymethyl)-25-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxy]-11,16,25-trioxa- (SC1) (CA INDEX NAME)



PAGE 1-A

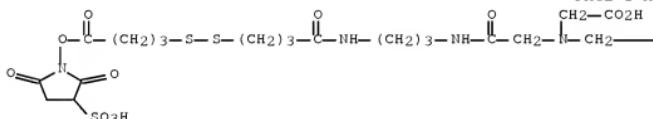
PAGE 1-B



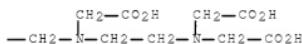
RN 127346-52-5 HCAPLUS

CN 21,22-Dithia-3,6,9,12,16-pentaazahexacosanoic acid, 3,6,9-tris(carboxymethyl)-26-[(2,5-dioxo-3-sulfo-1-pyrrolidinyl)oxy]-11,17,26-trioxa- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L147 ANSWER 35 OF 84 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:20592 HCAPLUS Full-text

DOCUMENT NUMBER: 90:20592

ORIGINAL REFERENCE NO.: 90:3399a,3402a

TITLE: Detection of immune complexes: a simple assay based on characterization of the in vivo bound Clq (PEG-Clq immunodiffusion test)

AUTHOR(S): Grangeot-Keros, Liane; Segond, P.; Capel, F.; Iscaiki, S.; Pillot, J.

CORPORATE SOURCE: Hop. Antoine Beclere, Clamart, Fr.

SOURCE: Journal of Immunological Methods (1978), 23(3-4), 349-62

DOCUMENT TYPE: CODEN: JIMMBG; ISSN: 0022-1759

LANGUAGE: English

ED Entered STN: 12 May 1984

AB A simple technique for detecting circulating immune complexes (IC) was developed with an exptl. model consisting of tetanus toxoid-human antitoxin complexes. Detection of circulating IC is a 2-step process. First, IC are precipitated by polyethylene glycol 6000 (PEG) at a final concentration of 2.5%. Then, IC are characterized by complement Clq bound in vivo as shown by gel double diffusion with an anti-Clq serum. When compared to the radiolabeled Clq binding test, the technique described here is simpler though giving similar results. The anal. study of precipitated IC shows the constant presence of IgG, IgM, Clq, and rheumatoid factor activity.

CC 15-1 (Immunochemistry)  
 ST immune complex assay blood complement; antitoxin toxin  
 detection blood  
 IT Antitoxins  
 RL: PROC (Process)  
 (-toxin complexes, detection of, in blood serum)  
 IT Blood analysis  
 (antitoxin-toxin complex detection in, complement  
 in)  
 IT Complement  
 (C1q, in antitoxin-toxin complex detection)

=> d ibib ab hitstr 36-44

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE,  
 BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 36 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2007:35870 USPATFULL Full-text  
 TITLE: Anti-CCR5 antibody  
 INVENTOR(S): Olson, William C., Ossining, NY, UNITED STATES  
 Maddon, Paul J., Scarsdale, NY, UNITED STATES  
 Tsurushita, Naoya, Palo Alto, CA, UNITED STATES  
 Hinton, Paul R., Sunnyvale, CA, UNITED STATES  
 Vasquez, Maximillano, Palo Alto, CA, UNITED STATES  
 PATENT ASSIGNEE(S): Progenics Pharmaceuticals Inc. (U.S. corporation)  
 Protein Design Labs, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007031408	A1	20070208
APPLICATION INFO.:	US 2006-581945	A1	20061016 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2003-371483, filed on 21 Feb 2003, GRANTED, Pat. No. US 7122185		

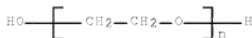
	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-358886P	20020222 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Cooper & Dunham LLP, 1185 Avenue Of the Americas, New York, NY, 10036, US		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1-73		
NUMBER OF DRAWINGS:	23 Drawing Page(s)		
LINE COUNT:	2381		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is directed an anti-CCR5 antibody which comprises (i) two light chains, each light chain comprising the expression product of a plasmid designated pVK:HuPRO140-VK (ATCC Deposit Designation PTA-4097), and (ii) two heavy chains, each heavy chain comprising an expression product of either a plasmid designated pVgI:HuPRO140 HG2-VH (ATCC Deposit Designation PTA-4098) or a plasmid designated pVgI:HuPRO140 (mutB+D+I)-VH (ATCC Deposit Designation PTA-4099) or a fragment thereof which binds to CCR5 on the surface of a human cell.

IT 25322-68-3D, Polyethylene glycol, antibody  
conjugates

(PEG; anti-CCR5 antibody and conjugates for  
treating human immunodeficiency virus 1 infection)  
 RN 25322-68-3 USPATFULL  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 37 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2006:261131 USPATFULL Full-text  
 TITLE: Humanized anti-Lymphotoxin beta receptor  
antibodies  
 INVENTOR(S): Garber, Ellen, Cambridge, MA, UNITED STATES  
 Simon, Kenneth, Cambridge, MA, UNITED STATES  
 Saldanha, Jose William, Enfield, UNITED KINGDOM  
 PATENT ASSIGNEE(S): Biogen Idec MA Inc., Cambridge, MA, UNITED STATES (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006222644	A1	20061005
APPLICATION INFO.:	US 2004-21819	A1	20041223 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2003-US20762, filed on 1 Jul 2003, PENDING		

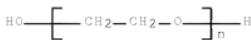
	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-392993P	20020701 (60)	<--
	US 2002-417372P	20021009 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	LAHIVE & COCKFIELD, 28 STATE STREET, BOSTON, MA, 02109, US		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Page(s)		
LINE COUNT:	2597		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention concerns humanized antibodies specific for the lymphotoxin beta receptor (LT- $\beta$ -R), cell lines that produce these antibodies, immunochemicals made from the antibodies, and diagnostic methods that use the antibodies. The invention also relates to the use of the antibodies alone or in combination with chemotherapeutic agent(s) in therapeutic methods.

IT 25322-68-3D, Polyethylene glycol, conjugates with  
 humanized anti-lymphotoxin  $\beta$  receptor antibodies  
 (humanized antibodies derived from mouse monoclonal  
 anti-lymphotoxin  $\beta$  receptor antibody BHA10 for cancer  
 diagnosis and therapy)

RN 25322-68-3 USPATFULL  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 38 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2006:174008 USPATFULL Full-text  
 TITLE: Methods and compositions for modulating and detecting  
 WISP activity  
 INVENTOR(S): Desnoyer, Luc, San Francisco, CA, UNITED STATES  
 Filvaroff, Ellen, San Francisco, CA, UNITED STATES  
 PATENT ASSIGNEE(S): GENENTECH, INC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006147453	A1	20060706
APPLICATION INFO.:	US 2005-105876	A1	20050414 (11)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2004-519621, filed on 28 Dec 2004, PENDING A 371 of International Ser. No. WO 2003-US20407, filed on 28 Jun 2003		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2006-392652P	(60)
	US 2002-408739P	20020906 (60)
DOCUMENT TYPE:	Utility	<--
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA, 94080, US	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	36 Drawing Page(s)	
LINE COUNT:	4380	

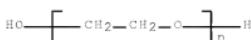
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for use in modulating the activity(s) of WISP-1 polypeptide are provided. WISP-1 antagonists include anti-WISP-1 antibodies, WISP-1 immunoadhesins and WISP-1 variants (and fusion proteins thereof) which inhibit or neutralize induction or secretion of HAS2, HA, CD44 or RHAMM by native human WISP-1 polypeptide in at least one type of mammalian cell. The invention also provides methods for in vitro, in situ, and/or in vivo diagnosis and/or treatment of mammalian cells or pathological conditions associated with native WISP-1 polypeptides.

IT 25322-68-3D, Polyethylene glycol, conjugates with  
 WISP-1 protein  
 (in cancer treatment; methods and compns. for modulating and detecting  
 WISP activity and related cancer therapy and diagnosis)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 39 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2006:86136 USPATFULL Full-text  
 TITLE: Methods and compositions for modulating and detecting  
 wisp activity  
 INVENTOR(S): Desnoyers, Luc, San Francisco, CA, UNITED STATES  
 Filvaroff, Ellen, San Francisco, CA, UNITED STATES  
 PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, UNITED  
 STATES, 94080 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006073135	A1	20060406	
APPLICATION INFO.:	US 2003-519621	A1	20030628 (10)	<--
	WO 2003-US20407		20030628	<--
			20041228	PCT 371 date

	NUMBER	DATE	
PRIORITY INFORMATION:	US 20 -392652P	(60)	
	US 2002-408739P	20020906 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA, 94080, US		
NUMBER OF CLAIMS:	30		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	27 Drawing Page(s)		
LINE COUNT:	4056		

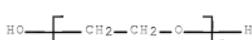
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for use in modulating the activity(s) of WISP-1 polypeptide are provided. WISP-1 antagonists include anti-WISP-1 antibodies, WISP-1 immunoadhesins and WISP-1 variants (and fusion proteins thereof) which inhibit or neutralize induction or secretion of IIAS2, IIA, CD4 or RIAM by native human WISP-1 polypeptide in at least one type of cells or pathological conditions associated with native WISP-1 polypeptides.

IT 25322-68-3D, Polyethylene glycol, conjugates with  
 WISP-1 protein  
 (in cancer treatment; antagonists of WISP-1 activity for use in  
 treatment of cancer)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 40 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2005:275137 USPATFULL Full-text  
 TITLE: Treatment of cancer using antibodies to  
 LRRC15  
 INVENTOR(S): Kloetzer, William S., Carlsbad, CA, UNITED STATES  
 McLachlan, Karen, Encinitas, CA, UNITED STATES  
 La Barre, Michael I., San Diego, CA, UNITED STATES  
 Fitchett, Jonathon, San Marcos, CA, UNITED STATES  
 Peach, Robert, San Diego, CA, UNITED STATES  
 Shestowsky, Bill, Encinitas, CA, UNITED STATES

PATENT ASSIGNEE(S): Glaser, Scott, San Diego, CA, UNITED STATES  
 Biogen Idec Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005239700	A1	20051027
APPLICATION INFO.:	US 2004-963987	A1	20041014 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-510552P	20031014 (60)
DOCUMENT TYPE:	Utility	<--
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005, US	
NUMBER OF CLAIMS:	52	
EXEMPLARY CLAIM:	1-168	
NUMBER OF DRAWINGS:	29 Drawing Page(s)	
LINE COUNT:	6917	

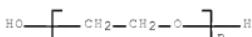
## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to novel methods of treating or diagnosing a hyperproliferative disease or disorder in an patient, where the methods include administrating to the patient a binding molecule which binds to a cell surface-expressed glycoprotein expressed predominantly in tumor or tumor-associated cells. In particular, the therapeutic and diagnostic methods of the present invention include the use of a binding molecule, for example an antibody or immunospecific fragment thereof, which specifically binds to the human LRRC15 protein. The present invention further provides a method of isolating and identifying cell surface expressed glycoproteins expressed in tumor or tumor associated tissues, where the method includes isolating desired glycoproteins via their affinity for specific lectins.

IT 25322-68-3, Polyethylene glycol  
 (anti-human LRRC15 protein antibodies and LRRC15 fusion proteins for diagnosis and treatment of hyperproliferative and inflammatory diseases)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 41 OF 84 USPATFULL on STN  
 ACCESSION NUMBER: 2005:157797 USPATFULL Full-text  
 TITLE: Anti-IL-20 antibodies and binding partners and methods of using in inflammation  
 INVENTOR(S): Xu, Wenfeng, Seattle, WA, UNITED STATES  
 Kindsvogel, Wayne R., Seattle, WA, UNITED STATES  
 Chen, Zhi, Bellevue, WA, UNITED STATES  
 Hughes, Steven D., Kenmore, WA, UNITED STATES  
 Chandrasekher, Yasmin A., Saratoga, CA, UNITED STATES  
 Dillon, Stacey R., Seattle, WA, UNITED STATES  
 Lehner, Joyce M., Seattle, WA, UNITED STATES  
 Siadak, Anthony W., Seattle, WA, UNITED STATES  
 Sivakumar, Pallavur V., Seattle, WA, UNITED STATES  
 Moore, Margaret D., Seattle, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005136004	A1	20050623
APPLICATION INFO.:	US 2004-994116	A1	20041119 (10)

	NUMBER	DATE	<--
PRIORITY INFORMATION:	US 2003-524131P	20031121 (60)	<--
	US 2004-555857P	20040324 (60)	

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: Shelby J. Walker, ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102, US

NUMBER OF CLAIMS: 38  
EXEMPLARY CLAIM: 1  
LINE COUNT: 9430

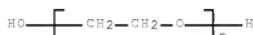
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to blocking the activity of IL-20 polypeptide molecules. IL-20 is a cytokine that is involved in inflammatory processes and human disease. IL-20RA/IL-20RB is a common receptor for IL-20. The present invention includes anti-IL-20 antibodies and binding partners, as well as methods for antagonizing IL-20 using such antibodies and binding partners.

IT 25322-68-3D, Polyethylene glycol, conjugates with antibody or receptor  
(anti-IL-20 neutralizing antibodies and antagonistic IL-20 receptor fragments for treating acute and chronic inflammation)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 42 OF 84 USPATFULL on STN  
ACCESSION NUMBER: 2004:279903 USPATFULL Full-text  
TITLE: Anti-CD74 immunoconjugates and methods  
INVENTOR(S): Griffiths, Gary L., Morristown, NJ, UNITED STATES  
Hansen, Hans J., Picayune, MS, UNITED STATES  
Goldenberg, David M., Mendham, NJ, UNITED STATES  
Lundberg, Bo B., Abo, FINLAND  
PATENT ASSIGNEE(S): Immunomedics, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004219203	A1	20041104
APPLICATION INFO.:	US 2003-706852	A1	20031112 (10) <--
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-314330, filed on 9 Dec 2002, PENDING Continuation of Ser. No. US 2001-965796, filed on 1 Oct 2001, PENDING Continuation of Ser. No. US 1999-307816, filed on 10 May 1999, GRANTED, Pat. No. US 6306393 Continuation-in-part of Ser. No. US 2003-350096, filed on 24 Jan 2003, PENDING Continuation of Ser. No. US 2000-590284, filed on 9 Jun 2000, PENDING Continuation-in-part of Ser. No. US		

2003-377122, filed on 3 Mar 2003, PENDING

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2003-478830P US 2002-360259P	20030617 (60) 20020301 (60)	<-- <--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Heller Ehrman & McAuliffe, Suite 300, 1666 K Street Northwest, Washington, DC, 20006		
NUMBER OF CLAIMS:	125		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Page(s)		
LINE COUNT:	2737		

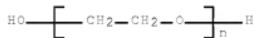
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

**AB** Disclosed are compositions that include anti-CD74 immunoconjugates and a therapeutic and/or diagnostic agent. Also disclosed are methods for preparing the immunoconjugates and using the immunoconjugates in diagnostic and therapeutic procedures. The compositions may be part of a kit for administering the anti-CD74 immunoconjugates compositions in therapeutic and/or diagnostic methods.

IT 25322-68-3, Polyethyleneglycol

(lipid conjugated to anti-CD74 binding mol. comprising;  
anti-CD74 immunoconjugates and their therapeutic and diagnostic uses)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

L147 ANSWER 43 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2004:226993 USPATFULL Full-text  
**TITLE:** Selected antibody compositions and methods  
for binding to aminophospholipids  
**INVENTOR(S):** Thorpe, Philip E., Dallas, TX, UNITED STATES  
 Ran, Sophia, Riverton, IL, UNITED STATES  
**PATENT ASSIGNEE(S):** Board of Regents, The University of Texas System (U.S.  
corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004175378	A1	20040909	
APPLICATION INFO.:	US 2003-620850	A1	20030715 (10)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-396263P	20020715 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Shelley P.M. Fussey, Williams, Morgan & Amerson, P.C., Suite 1100, 10333 Richmond, Houston, TX, 77042		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	53 Drawing Page(s)		
LINE COUNT:	12773		

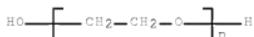
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are surprising discoveries concerning the role of anionic phospholipids and aminophospholipids in tumor vasculature and in viral entry and spread, and compositions and methods for utilizing these findings in the treatment of cancer and viral infections. Also disclosed are advantageous antibody, immunoconjugate and duramycin-based compositions and combinations that bind and inhibit anionic phospholipids and aminophospholipids, for use in the safe and effective treatment of cancer, viral infections and related diseases.

IT 25322-68-3D, Polyethylene glycol, conjugates  
(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



L147 ANSWER 44 OF 84 USPATFULL on STN

ACCESSION NUMBER: 2004:220853 USPATFULL Full-text

TITLE: Selected antibody compositions for binding to aminophospholipids

INVENTOR(S): Thorpe, Philip E., Dallas, TX, UNITED STATES  
 Ran, Sophia, Riverton, IL, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004170620	A1	20040902	
APPLICATION INFO.:	US 2003-621269	A1	20030715 (10)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-396263P	20020715 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

LEGAL REPRESENTATIVE: Shelley P.M. Fussey, Williams, Morgan & Amerson, P.C., Suite 1100, 10333 Richmond, Houston, TX, 77042

NUMBER OF CLAIMS: 92

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 53 Drawing Page(s)

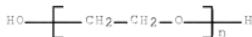
LINE COUNT: 13072

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are surprising discoveries concerning the role of anionic phospholipids and aminophospholipids in tumor vasculature and in viral entry and spread, and compositions and methods for utilizing these findings in the treatment of cancer and viral infections. Also disclosed are advantageous antibody, immunoconjugate and duramycin-based compositions and combinations that bind and inhibit anionic phospholipids and aminophospholipids, for use in the safe and effective treatment of cancer, viral infections and related diseases.

IT 25322-68-3D, Polyethylene glycol, conjugates  
(antibodies specifically bind to anionic phospholipids and/or aminophospholipids conjugated with duramycin peptide for treating viral infections and cancer)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)

=&gt; d iall abeq tech abex fraghitstr 45-54

YOU HAVE REQUESTED DATA FROM FILE 'HCPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 45 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-386334 [39] WPIX  
 CROSS REFERENCE: 2005-367003; 2005-372351; 2005-372352  
 DOC. NO. CPI: C2005-119573 [39]  
 TITLE: New protein conjugate comprising a physiologically active peptide, a non-peptide polymer and an immunoglobulin Fc fragment, useful for developing long-acting formulations of various drugs  
 DERWENT CLASS: A96; B04; B05; D16  
 INVENTOR: BAE S M; KIM D J; KIM Y M; KWON S C; LEE G S; LIM C K  
 PATENT ASSIGNEE: (HANM-N) HANMI PHARM CO LTD  
 COUNTRY COUNT: 106

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005047336	A1	20050526	(200539)*	EN	126[15]	
BR 2004006605	A	20051206	(200624)	PT		
MX 2005007210	A1	20060201	(200641)	ES		
EP 1682583	A1	20060726	(200649)	EN		
US 20060269553	A1	20061130	(200679)	EN		
JP 2007536211	W	20071213	(200801)	JA	45	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005047336	A1	WO 2004-KR2944	20041113
BR 2004006605	A	BR 2004-6605	20041113
EP 1682583	A1	EP 2004-800091	20041113
BR 2004006605	A	WO 2004-KR2944	20041113
MX 2005007210	A1	WO 2004-KR2944	20041113
EP 1682583	A1	WO 2004-KR2944	20041113
US 20060269553	A1	WO 2004-KR2944	20041113
MX 2005007210	A1	MX 2005-7210	20050630
US 20060269553	A1	US 2006-535232	20060619
JP 2007536211	W	WO 2004-KR2944	20041113
JP 2007536211	W	JP 2006-539398	20041113

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
BR 2004006605	A	Based on
MX 2005007210	A1	Based on
EP 1682583	A1	Based on
JP 2007536211	W	Based on
		WO 2005047336 A

PRIORITY APPLN. INFO: KR 2003-80299 20031113

INT. PATENT CLASSIF.:

IPC ORIGINAL:

A61K0039-395 [I,A]; A61K0039-395 [I,C]; C07K0016-46 [I,A]; C07K0016-46 [I,C]; C07K0019-00 [I,A]; C07K0019-00 [I,C]; C07K0019-00 [I,C]; C12N0009-00 [I,A]; C12N0009-00 [I,C]; A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0038-21 [I,A]; A61K0038-21 [I,C]; A61K0038-27 [I,A]; A61K0038-27 [I,C]; A61K0039-395 [I,A]; A61K0039-395 [I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; A61P0037-00 [I,A]; A61P0037-00 [I,C]; A61P0043-00 [I,A]; A61P0043-00 [I,C]; A61P0005-00 [I,C]; A61P0005-06 [I,A]; A61P0007-00 [I,C]; A61P0007-06 [I,A]; C07K0001-00 [I,C]; C07K0001-02 [I,A]; C07K0014-435 [I,C]; C07K0014-505 [I,A]; C07K0014-535 [I,A]; C07K0014-56 [I,A]; C07K0014-61 [I,A]; C07K0016-00 [I,A]; C07K0016-00 [I,C]; C07K0016-46 [I,C]; C07K0019-00 [I,C]

IPC RECLASSIF.:

ECLA: C07K0019-00  
ICO: M07K0319:30USCLASS NCLM: 424/155.100  
NCLS: 424/178.100; 435/188.500; 530/391.100

BASIC ABSTRACT:

WO 2005047336 A1 UPAB: 20051222

NOVELTY - Protein conjugate comprising covalently linked physiologically active polypeptide, a non-peptide polymer and immunoglobulin Fc fragment is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (A) a method for preparing the protein conjugate; and
- (B) a pharmaceutical composition for enhancing in vivo duration and stability of a physiologically active polypeptide comprising the protein conjugate and a pharmaceutical carrier.

USE - The protein conjugate is useful for developing long-acting formulations of various polypeptide drugs. The protein conjugate and composition are useful for enhancing in vivo duration and stability of a physiologically active polypeptide.

ADVANTAGE - The protein conjugates have enhanced serum stability without reducing the in vivo activity of the bound peptides.

Fab'-N-PEG-N-Fc complex was subjected to pharmacokinetic analysis using Fab' as a control by subcutaneous injection into rats at 100 microg/kg and blood samples taken at 1, 6, 12, 24, 30, 48, 72, 96, 120, 240 and 288 hours examined by ELISA for serum protein levels. By 240 hours, serum protein concentration of unconjugated Fab' had fallen below 1 ng/ml compared with 100 ng/ml for the complex.

MANUAL CODE: CPI: A12-V01; B04-C01H; B04-C02; B04-C03; B04-G01; B04-G21; B04-G22; B04-H02; B04-H04; B04-H05; B04-H05A; B04-H06; B04-H07; B04-H08; B04-H11; B04-H13; B04-H19; B04-J03A; B04-J03B; B04-J04; B04-J05D; B04-J05F; B04-J05H; B04-J06; B04-J07; B04-J09; B04-J10; B04-J13; B04-J18; B04-K01; B04-L01; B04-L04C; B04-L05A; B04-N02; B04-N05; B12-M10A5; B14-S15; D05-H11

TECH

**BIOTECHNOLOGY - Preferred Protein Conjugate:** The non-peptide polymer is covalently linked via a reactive group at its both ends to the physiologically active polypeptide and the immunoglobulin Fc fragment, where one or more complexes of the physiologically active polypeptide and the non-peptide polymer are covalently linked to a single molecule of the immunoglobulin Fc fragment. The immunoglobulin Fc fragment is preferably non-glycosylated and composed of 1-4 domains, e.g. CH1, CH2, CH3, and CH4 domains, where the immunoglobulin Fc fragment further includes a hinge region. The immunoglobulin Fc fragment is an Fc fragment from IgG, IgA, IgD, IgE, IgM, or their combinations and hybrids, where the immunoglobulin Fc fragment is an Fc fragment from IgG1, IgG2, IgG3, IgG4, or their combinations and hybrids, particularly an IgG4 Fc fragment and specifically a human glycosylated IgG4 Fc fragment. The reactive group of the non-peptide polymer is an aldehyde group, a propionaldehyde group, a butyraldehyde group, a maleimide group or a succinimide derivative, where the succinimide derivative is succinimidyl propionate, succinimidyl carboxymethyl, hydroxy succinimidyl or succinimidyl carbonate, where the non-peptide polymer has a reactive aldehyde group as a reactive group at its both ends. The non-peptide polymer is linked at each end to a free reactive group at an amino terminal end, lysine residue, histidine residue or cysteine residue of the immunoglobulin Fc fragment and the physiologically active polypeptide. The non-peptide polymer is selected from polyethylene glycol single polymers, polypropylene glycol single polymers, ethylene glycol-propylene glycol copolymers, polyoxyethylated polyols, polyvinyl alcohols, polysaccharides, dextrans, polyvinylethyl ethers, biodegradable polymers, lipid polymers, chitins and/or hyaluronic acids, particularly polyethylene glycol.

**Preferred Active Polypeptides:** The physiologically active polypeptide is selected from hormones, cytokines, enzymes, antibodies, growth factors, transcription regulatory factors, coagulation factors, vaccines, structural proteins, ligand proteins or receptors, especially human growth hormone, growth hormone releasing hormone, growth hormone releasing peptide, interferons, interferon receptors, colony stimulating factors, glucagon-like, G-protein-coupled receptor, interleukins, interleukin receptors, enzymes, interleukin binding proteins, cytokine binding proteins, macrophage activating factor, macrophage peptide, B cell factor, T cell factor, protein A, allergy inhibitor, cell necrosis glycoproteins, immunotoxin, lymphotoxin, tumor necrosis factor, tumor suppressors, metastasis growth factor, alpha-1 antitrypsin, albumin, alpha-lactalbumin, apolipoprotein-E, erythropoietin, highly glycosylated erythropoietin, angiopoietins, hemoglobin, thrombin, thrombin receptor activating peptide, thrombomodulin, factor VII, factor VIIa, factor VIII, factor IX, factor XIII, plasminogen activating factor, fibrin-binding peptide, urokinase, streptokinase, hirudin, protein C, C-reactive protein, renin inhibitor, collagenase inhibitor, superoxide dismutase, leptin, platelet-derived growth factor, epithelial growth factor, epidermal growth factor, angiostatin, angiotensin, bone growth factor, bone stimulating protein, calcitonin, insulin, atriopeptin, cartilage inducing factor, elcatonin, connective tissue factor, tissue factor pathway inhibitor, activating follicle stimulating hormone, luteinizing hormone, luteinizing hormone releasing hormone, nerve growth factors, parathyroid hormone, relaxin, secretin, somatotropin, insulin-like growth factor, adrenocortical hormone, glucagon, cholecystokinin, pancreatic polypeptide, gastrin releasing peptide, corticotropin releasing factor, thyroid

stimulating hormone, autotaxin, lactoferrin, myostatin, receptors, receptor antagonists, cell surface antigens, virus derived vaccine antigens, monoclonal antibodies, polyclonal antibodies, or antibody fragments. The physiologically active polypeptide is most preferably human growth hormone, interferon-alpha, granulocyte colony stimulating factor, erythropoietin or a Fab' antibody fragment.

Preparation: Claimed preparation of the protein conjugate comprises:

(a) covalently linking one or more non-peptide polymers having a reactive group at its both ends, one or more physiologically active polypeptides and one or more immunoglobulin Fc fragments; and

(b) isolating the protein conjugate essentially comprising the covalently linked physiologically active polypeptide, non-peptide polymer and immunoglobulin Fc fragment.

Step (a) comprises:

(1) covalently linking an immunoglobulin Fc fragment or physiologically active polypeptide to one end of an activated non-peptide polymer;

(2) isolating a complex comprising the immunoglobulin Fc fragment or physiologically active polypeptide linked to the non-peptide polymer from a resulting reaction mixture; and

(3) covalently linking an immunoglobulin Fc fragment or physiologically active polypeptide to the other end of the non-peptide polymer of the isolated complex to provide a protein conjugate comprising the immunoglobulin Fc fragment and the physiologically active polypeptide, which are linked to each end of the non-peptide polymer.

In step (1), the physiologically active polypeptide and the non-peptide polymer are used at a reaction molar ratio of 1:1.25 to 1:5, particularly with immunoglobulin Fc fragment and the non-peptide polymer used at a reaction molar ratio of 1:5 to 1:10. In step (3), the complex obtained in step (2) and the immunoglobulin Fc fragment or physiologically active polypeptide are used at a reaction molar ratio of 1:0.5 to 1:20. Steps (1) and (3) are carried out in the presence of a reducing agent, e.g. sodium cyanoborohydride (NaCNBH3), sodium borohydride, dimethylamine borate or pyridine borate.

ABEX EXAMPLE - The E. coli transformant BL21/pDLHF expressing the anti-tumor necrosis factor-alpha Fab' was inoculated into a fermenter and cultured at 30 degrees C and 500 rpm in medium supplemented with glucose and yeast extracts. When the culture reached an OD600 value of 80-100, IPTG was added as inducer to induce protein expression and further cultured for 40-45 hours to give OD600 value of 120-140. The fermentation fluid was centrifuged at 20000g for 30 minutes and the supernatant collected and purified by column chromatography to give highly pure anti-tumor necrosis factor-alpha Fab' fractions. - Of these fractions, 40 mg was dissolved in 100 mM sodium phosphate buffer (pH 6.0) to give a concentration of 5 mg/ml and mixed with butyl ALD-PEG-butyl ALD (3.4 kDa) at a Fab':PEG molar ratio of 1:5 with NaCNBH3 (20 mM) added as reducing agent. The mixture was reacted with gentle agitation for 2 hours at 4 degrees C, then the reaction buffer exchanged for 20 mM sodium phosphate buffer at the same pH and the mixture purified on a polyCAT column to remove unreacted Fab' molecules. This purified complex was dissolved in 100 mM sodium phosphate buffer (pH 6.0) at 10 mg/ml and mixed with immunoglobulin Fc dissolved in the same buffer at complex:Fc ration of 1:5. The reaction mixture was concentrated to final protein concentration of 50 mg/ml and NaCNBH3 (20 mM) added as reducing agent, then agitated gently at 4 degrees C for 24

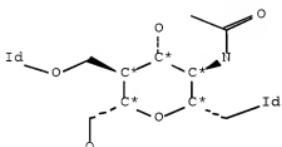
hours. - The reaction was loaded onto a Superdex 200 column and equilibrated and then eluted with 10 mM sodium phosphate buffer to give pure Fab'-N-PEG-N-Fc complex.

AN.S DCR-90688

CN.P CHITIN

CN.S N-[5-(3-Acetylamino-4,5-dihydroxy-6-hydroxymethyl-tetrahydro-pyran-2-yloxy)-2-(5-acetylamino-4,6-dihydroxy-2-hydroxymethyl-tetrahydro-pyran-3-yloxy)-4-hydroxy-6-hydroxymethyl-tetrahydro-pyran-3-yl]-acetamide

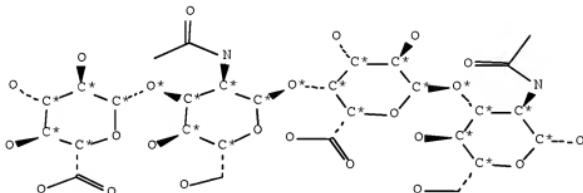
SDCN R03233



AN.S DCR-97115

CN.P HYALURONIC-ACID

SDCN R03231; R06437



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 46 OF 84 WPIX COPYRIGHT 2008

THE THOMSON CORP on STN

CROSS REFERENCE: 2004-707449

DOC. NO. CPI: C2005-185031 [63]

TITLE: Protein conjugate having a prolonged in vivo half-life and a low probability of inducing an immune

response, comprises a physiologically active polypeptide, a non-peptidic polymer linker, and an immunoglobulin

DERWENT CLASS: A96; B04; D16

INVENTOR: BAE S; KIM D; KWON S; LEE G; LIM C

PATENT ASSIGNEE: (BAES-I) BAE S; (KIMD-I) KIM D; (KIMY-I) KIM Y; (KWON-I) KWON S; (LEEG-I) LEE G; (LIMC-I) LIM C

COUNTRY COUNT: 1

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20050176108	A1	20050811	(200563)*	EN	24[9]	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20050176108	A1	US 2003-659195	20030909

PRIORITY APPLN. INFO: KR 2003-36408 20030605  
KR 2003-15744 20030313

INT. PATENT CLASSIF.: C07K0016-00 [I,A]; C07K0016-00 [I,C]  
 IPC RECLASSIF.: 435/070.210  
 USCLASS NCLM: 424/178.100; 530/391.100  
 NCLS: 424/178.100; 530/391.100

## BASIC ABSTRACT:

US 20050176108 A1 UPAB: 20051223

NOVELTY - A protein conjugate comprising a physiologically active polypeptide, a non-peptidic polymer, and an immunoglobulin, which are covalently linked to one another, and having a prolonged in vivo half-life of the physiologically active polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) a method for preparing the protein conjugate;
- (2) a pharmaceutical composition having a prolonged half-life of a physiologically active polypeptide, which comprises the protein conjugate and a pharmaceutical carrier; and
- (3) prolonging the in vivo half-life of a physiologically active polypeptide comprising covalently linking a non-peptidic polymer having reactive groups at both ends with a physiologically active polypeptide and an immunoglobulin.

USE - The protein conjugate is useful for delivering a physiologically active polypeptide with enhanced in vivo stability and prolonged half life in blood and with a low probability of inducing an immune response.

ADVANTAGE - Chemical modification of polypeptides with polyethylene glycol (PEG) increases the solubility of peptide drugs, and also increases serum stability, without inducing any immune response. However, there is a lowering in activity and production yield as the molecular weight of the PEG increases. The new conjugate provides an alternative way of increasing the serum stability of a peptidic drug with minimal reduction in the polypeptide's activity. In pharmacokinetic analyses a human growth hormone (hGH)-PEG-IgG conjugate of the invention had a half-life about 13 times longer than that of wild-type hGH, while an hGH-PEG and an hGH-PEG-albumin complex had half-lives 7 and 5 times longer than the wild-type. The conjugate of the invention showed a considerable increase in both mean residence time and serum half-life. MANUAL CODE: CPI: A10-E01; A12-V01; B04-C01; B04-C02; B04-C03;

B04-G01; B04-H02; B04-H04; B04-H05; B04-H06; B04-H07;  
 B04-H08; B04-H13; B04-H15; B04-H19; B04-J01; B04-J03;  
 B04-J04; B04-J05; B04-J06; B04-J07; B04-J09; B04-J13;

TECH

**BIOTECHNOLOGY - Preferred Protein Conjugate:** The non-peptidic polymer has two reactive groups at both ends, through which the polymer is covalently linked to the physiologically active polypeptide and the immunoglobulin, where the immunoglobulin is covalently linked to at least two complexes of the physiologically active polypeptide and the non-peptidic polymer.

The immunoglobulin is (human) IgG, IgA, IgD, IgE, IgM or their mixture, preferably IgG1, IgG2, IgG3, IgG4 or their mixture.

The reactive group of the non-peptidic polymer is aldehyde, propion aldehyde, maleimide or succinamide derivative. The succinamide derivative is succinimidyl propionate, succinimidyl carboxymethyl, hydroxy succinimidyl or succinimidyl carbonate, and the non-peptidic polymer has aldehyde groups at both ends. The non-peptidic polymer is covalently linked at its ends, the amino terminal, lysine residue, histidine residue or cysteine residue of the immunoglobulin and the amino terminal, lysine residue, histidine residue or cysteine residue of the physiologically active polypeptide, respectively. The non-peptidic polymer is poly(propylene glycol), ethylene glycol-propylene glycol copolymer, polyoxyethylated polyol, polyvinyl alcohol, polysaccharide, dextran, polyvinyl ethyl ether, poly(lactic-glycolic acid), biodegradable polymer, lipid polymer, chitin, hyaluronic acids, or their mixture, preferably poly(ethylene glycol).

The physiologically active polypeptide is hormone, cytokine, enzyme, antibody, growth hormone, transcription regulatory factor, blood factor, vaccine, structure protein, ligand protein or receptor. The physiologically active polypeptide is human growth hormone, growth hormone releasing hormone, growth hormone releasing peptide, interferons, colony stimulating factor, interleukins, glucocerebrosidase, macrophage activating factor, macrophage peptide, B cell factor, T cell factor, protein A, suppressive factor of allergy, cell necrosis glycoprotein, immunotoxin, lymphotoxin, tumor necrosis factor, tumor inhibitory factor, transforming growth factor, alpha-1 antitrypsin, albumin, apolipoprotein-E, erythropoietin, hyper-glycosylated erythropoietin, factor VII, factor VIII, factor IX, plasminogen activator, urokinase, streptokinase, protein C, C-reactive protein, renin inhibitor, collagenase inhibitor, superoxide dismutase, platelet derived growth factor, epidermal growth factor, osteogenic growth factor, osteogenesis stimulating protein, calcitonin, insulin, atriopeptin, cartilage inducing factor, connective tissue activator protein, follicle stimulating hormone, luteinizing hormone, FSH releasing hormone, nerve growth factor, parathyroid hormone, relaxin, secretin, somatomedin, insulin-like growth factor, adrenocorticotrophic hormone, glucagon, cholecystokinin, pancreatic polypeptide, gastrin releasing peptide, corticotrophin releasing factor, thyroid stimulating hormone, monoclonal antibody, polyclonal antibody, antibody derivatives including (Fab)', (Fab)'2 and scFv, and virus-derived vaccine antigen, preferably human growth hormone, interferon-alpha, granulocyte colony stimulating factor or erythropoietin.

**Preparation (claimed):** Preparing the protein conjugate comprises:

- (a) covalently linking at least one physiologically active polypeptide, at least one immunoglobulin with at least one non-peptidic polymer having reactive groups at both ends; and
- (b) isolating a protein conjugate comprising essentially the active polypeptide, the immunoglobulin and the non-peptidic polymer, which are linked covalently. Step (a)

further comprises:

(a1) covalently coupling one end of the non-peptidic polymer with either an immunoglobulin or a physiologically active polypeptide;

(a2) isolating from the resulting reaction mixture a complex comprising the non-peptidic polymer coupled with the immunoglobulin or the physiologically active polypeptide; and

(a3) covalently coupling the free end of the non-peptidic polymer of the complex with the immunoglobulin or physiologically active polypeptide, to produce a protein conjugate comprising the physiologically active polypeptide, the non-peptidic polymer and the immunoglobulin, which are covalently interlinked, where the molar ratio of the physiologically active polypeptide to the non-peptidic polymer in step (a1) is 1:2.5-1:5, the molar ratio of the immunoglobulin to the non-peptidic polymer in step (a1) is 1:5-1:10, and the molar ratio of the complex obtained in step (a2) to physiologically active polypeptide or immunoglobulin in step (a3) is 1:1-1:3.

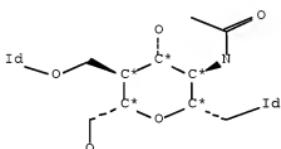
Steps (a1) and (a3) are performed in the presence of a reducing agent, e.g. sodium cyanoborohydride, sodium borohydride, dimethylamine borate or pyridine borate.

AN.S DCR-90688

CN.P CHITIN

CN.S N-[5-(3-Acetylamino-4,5-dihydroxy-6-hydroxymethyl-tetrahydro-pyran-2-yloxy)-2-(5-acetylamino-4,6-dihydroxy-2-hydroxymethyl-tetrahydro-pyran-3-yloxy)-4-hydroxy-6-hydroxymethyl-tetrahydro-pyran-3-yl]-acetamide

SDCN R03233



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 47 OF 84      WPIX COPYRIGHT 2008      THE THOMSON CORP on STN  
 DOC. NO. CPI: C2003-237339 [78]  
 TITLE: New conjugate compounds used for treating e.g.  
 inflammatory bowel disease, rheumatoid arthritis,  
 acromegaly, tuberculosis, tumors and angiogenesis contain  
 cytotoxic or therapeutic agents  
 DERWENT CLASS: A96; B04; B05  
 INVENTOR: COY D H; FUSELIER J A  
 PATENT ASSIGNEE: (TULA-C) TULANE EDUCATIONAL FUND; (COYD-I) COY D H;

(FUSE-I) FUSELIER J A

COUNTRY COUNT: 101

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2003074551	A2	20030912	(200378)*	EN	76[0]		<--
AU 2003220011	A1	20030916	(200430)	EN			<--
EP 1487493	A2	20041222	(200501)	EN			
KR 2004088568	A	20041016	(200514)	KO			
NO 2004004039	A	20040929	(200517)	NO			
MX 2004008419	A1	20050101	(200564)	ES			
CN 1649625	A	20050803	(200578)	ZH			
US 20060009622	A1	20060112	(200605)	EN			
JP 2006510571	W	20060330	(200623)	JA	51		
IN 2004CN02152	P4	20060303	(200626)	EN			
BR 2003008090	A	20060411	(200627)	PT			
ZA 2004006614	A	20060628	(200648)	EN	98		
NZ 534719	A	20080229	(200822)	EN			

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003074551 A2		WO 2003-US6657	20030303
US 20060009622 A1	Provisional	US 2002-360831P	20020301
IN 2004CN02152 P4		WO 2003-US6657	
AU 2003220011 A1		AU 2003-220011	20030303
BR 2003008090 A		BR 2003-3090	20030303
CN 1649625 A		CN 2003-309927	20030303
EP 1487493 A2		EP 2003-716299	20030303
JP 2006510571 W		JP 2003-573017	20030303
EP 1487493 A2		WO 2003-US6657	20030303
NO 2004004039 A		WO 2003-US6657	20030303
MX 2004008419 A1		WO 2003-US6657	20030303
US 20060009622 A1		WO 2003-US6657	20030303
JP 2006510571 W		WO 2003-US6657	20030303
BR 2003008090 A		WO 2003-US6657	20030303
ZA 2004006614 A		ZA 2004-6614	20040819
KR 2004088568 A		KR 2004-713597	20040831
MX 2004008419 A1		MX 2004-8419	20040831
IN 2004CN02152 P4		IN 2004-CN2152	20040927
NO 2004004039 A		NO 2004-4039	20041018
US 20060009622 A1		US 2005-506223	20050713
NZ 534719 A		NZ 2003-534719	20030303
NZ 534719 A		WO 2003-US6657	20030303

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003220011	A1	Based on
EP 1487493	A2	Based on
MX 2004008419	A1	Based on
JP 2006510571	W	Based on
BR 2003008090	A	Based on
NZ 534719	A	Based on

PRIORITY APPLN. INFO: US 2002-360831P 20020301

## INT. PATENT CLASSIFI.:

MAIN: A61K038-17; A61K039-395; C07K007-06  
 SECONDARY: A61K038-08; A61K047-48; A61P035-00; C07K014-47;  
C07K016-46  
 IPC ORIGINAL: A61K [N,S]; A61K0038-00 [I,A]; A61K0038-00 [I,C];  
 A61K0038-17 [I,A]; A61K0038-17 [I,C];  
A61K0039-395 [I,A]; A61K0039-395 [I,C];  
 A61P0001-00 [I,A]; A61P0001-00 [I,C]; A61P0019-00 [I,C];  
 A61P0019-02 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C];  
 A61P0031-00 [I,C]; A61P0031-06 [I,A]; A61P0035-00 [I,A];  
 A61P0035-00 [I,C]; A61P0043-00 [I,A]; A61P0043-00 [I,C];  
 C07K [N,S]; C07K0014-435 [I,C]; C07K0014-47 [I,A];  
 C07K0014-655 [I,A]; C07K0016-00 [I,A]; C07K0016-00 [I,C];  
 C07K0004-00 [I,A]; C07K0004-00 [I,C]; C07K0005-00 [I,C];  
 C07K0005-103 [I,A]; C12N0009-99 [N,A]; C12N0009-99 [N,C]  
 IPC RECLASSIF.: A61R0039-395 [I,A]; A61K0039-395  
 [I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C];  
C07K0016-46 [I,A]; C07K0016-46 [I,C];  
 C07K0007-00 [I,C]; C07K0007-06 [I,A]

ECLA:

USCLASS NCLM: 530/402.000

## BASIC ABSTRACT:

WO 2003074551 A2 UPAB: 20060203

NOVELTY - Conjugate compounds (I) and (II) containing cytotoxic or therapeutic agents, are new.

DETAILED DESCRIPTION - Conjugate compounds of formula X-O-CO-N((CH<sub>2</sub>)<sub>2-R</sub>)-CH<sub>2</sub>-CO-NH-Y-Z-Q (I) and X-O-CO-N((CH<sub>2</sub>)<sub>2-R</sub>)-CH<sub>2</sub>-CO-R<sub>3</sub> (II) are new.

X = a cytotoxic or therapeutic agent;

n = 0-6;

(CH<sub>2</sub>)<sub>n</sub> = alkyl, alkenyl, alkynyl, cyclic group, heterocyclyl, aromatic group or heteroaromatic group (all optionally substituted and/or branched);

R = N(R<sub>1</sub>R<sub>2</sub>), OR<sub>1</sub> or SR<sub>1</sub>;

R<sub>1</sub>, R<sub>2</sub> = H or lower alkyl;

Y = a hydrophilic spacer sequence or absent;

Z = A-B'-C'-E-F' and is a linking peptide that preserves at least 50% of the biological activity of Q when bonded to Q at the N-terminus or at a compatible side-chain amino group of Q;

Q = a targeting group or absent;

A = D-Lys, D-Tyr, D-Ser or L-Ser, or absent;

B' = D-Lys or D-Tyr or absent;

C' = Lys, Ser, hSer, Thr, Nle, Abu, Nva, (2, 3, or 4) 3-pyridyl-Ala (Pal), Orn, Dab, Dap, 4-NH<sub>2</sub>-Phe, D-4-OH-Pro or L-4-OH-Pro or absent;

E = D-Lys, D-Tyr, D-Ser, D-4-OH-Pro, L-4-OH-Pro, 3-iodo-D-Tyr, 3-5 diiodo-D-Tyr, 3-astatine-D-Tyr, 3-5 astatine-D-Tyr, 3-bromo-D-Tyr, 3-5 dibromo-D-Tyr, D-Asn, L-Asn, D-Asp, L-Asp, D-Glu, L-Glu, D-Gln or L-Gln, and

F' = D-Lys, D-Tyr, D-Ser, L-Ser, D-4-OH-Pro, L-4-OH-Pro, 3-iodo-D-Tyr, 3-5 diiodo-D-Tyr, 3-astatine-D-Tyr, 3-5 astatine-D-Tyr, 3-bromo-D-Tyr, 3-5 dibromo-D-Tyr, D-Asn, L-Asn, D-Asp, L-Asp, D-Glu, L-Glu, D-Gln or L-Gln;

R<sub>3</sub> = NH(CH<sub>2</sub>)<sub>m</sub>SH, D or L cysteine, a benzophenone or OH, and

m = 2-6;

provided that:

(1) when A, B', C' and E are Tyr, Tyr, Lys, and Tyr respectively, F' is not Lys;

(2) when A, B', C' and E are Lys, Tyr, Lys, and Tyr respectively, E is not Tyr or Lys; and

(3) when A and B' are absent and C' and E are Lys and Tyr respectively, F' is not Tyr or Lys.

ACTIVITY - Antitubercular; Osteopathic; Antiinflammatory;  
 Gastrointestinal-Gen.; Antirheumatic; Antiarthritic; Tuberculostatic;  
 Cytostatic; Antiangiogenic; Ophthalmological.

MECHANISM OF ACTION - None given.

USE - Used for treating inflammatory bowel disease, rheumatoid arthritis, acromegaly, tuberculosis, tumors of the lung, breast, brain, eye, prostate or colon, tumors of neuroendocrine origin (specifically carcinoid syndrome) or angiogenesis that causes inappropriate proliferation of blood vessels (particularly in the eye), such as those associated with tumors, retinal macular degeneration and diabetic retinopathy.

In an assay for measuring inhibition of gonadotropin releasing hormone from monocultures of rat pituitary cells, camptothecin-carbonyl-N- aminoethyl-glycine-D-tert-butyl-Ser-Nle-D-tert-butyl-Tyr-D-tert-butyl-Ser- S-trityl-Cys-Phe-D-Trp-epsilon-tert-butylxycarbonyl-Lys-tert-butyl-Thr-S- trityl-Cys-tert-butyl-Thr-Rink-amide-resin exhibited an IC<sub>50</sub> value of 0.27 +/- 0.02 nM.

ADVANTAGE - (I) Are conjugates having a cleavable chemical linker that controls the release rate of therapeutic and cytotoxic agents in circulation, rendering the active agent more readily internalized by the cell. (II) Provide an effective means to link cytotoxic agents to a targeting agent while retaining the activity of each component to maximize therapeutic effects while minimizing toxicity. (I) May be used with a wide range of therapeutic or cytotoxic agents.

MANUAL CODE: CPI: A12-V01; B04-C01A; B04-C01B; B04-H01; B04-H06A;  
 B04-N02; B14-A01B1; B14-C01; B14-C03; B14-C06; B14-C09;  
 B14-D03; B14-H01; B14-N01

#### TECH

ORGANIC CHEMISTRY - Preparation: (I) And (II) are prepared by standard peptide synthesis.

PHARMACEUTICALS - Preferred Components: Q Targets the compound to a cell or tissue (a cancer cell, white blood cell, cardiac tissue, brain tissue or a tuberculosis-infected tubercle, specifically a tumor or a proliferative angiogenic blood vessel in the eye). The targeting group is a peptide derived from a phage-display library (or its conservative substitutions) that targets cells and tissues.

In (II), the R3 group is used to attach a peptide, protein or antibody, preferably by a thiol reaction (when m1 is 0-6) or by a photochemical reaction (when R3 is a benzophenone (preferably p-benzoyl phenylalanine)).

POLYMERS - Preferred Components: The hydrophilic polymer is polyethylene glycol, polyvinyl acetate, polyvinyl alcohol, HPMA (N-(2-hydroxypropyl) methacrylamide) or HPMA copolymers, alpha,beta-poly(N-hydroxyethyl)-DL-aspartamide (PHEA), or alpha,beta-poly(n-hydroxypropyl)-DL-aspartamide (preferably polyethylene glycol, polyvinyl alcohol and polyvinyl acetate).

ABEX DEFINITIONS - Preferred Definitions: - Y = a peptide of formula U(VV)<sub>n</sub> that increases the hydrophilic biodistribution of (I) or a hydrophilic polymer; - U = D-Pro, L-Pro, D-4-OH-Pro, L-4-OH-Pro, sarcosine, Lys, Orn, Dab, Dap, 4-NH2-Phe or (NH2-(CH<sub>2</sub>)<sub>m1</sub>-COOH), or absent; - m1 = 2-10, and - V = D-Ser, L-Ser, D-Thr, L-Thr, D-Gln, L-Gln, D-Asn, L-Asn, D-4-OH-Pro or L-4 hydroxy-Pro and at least one V is a D-amino acid; - cytotoxic agent = an alkylating agent, an antibiotic, an antimetabolite, a tubulin inhibitor, a topoisomerase I or II inhibitor, a hormonal agonist or antagonist, an apoptotic agent or an immunomodulator, preferably camptothecin, homocamptothecin, colchicine, combretastatin, dolistatin, doxorubicin, methotrexate, podophyllotoxin, rhizoxin, rhizoxin D, a taxol, paclitaxol, CC1065, a maytansinoid or their derivatives or analogs, and - targeting group Q = a biologically active peptide (somatostatin, bombesin, a KISS peptide, a urotensin II peptide, gonadotropin-releasing hormone (GnRH) I and II peptides, octreotide, depreotide, vapreotide, vasoactive intestinal peptide (VIP), cholecystokinin (CCK), insulin-like growth

factor (IGF), RGD-containing peptides, melanocyte-stimulating hormone (MSH) peptide, neurotensin, calcitonin, a peptide comprising the complementarity determining region of an antitumor antibody glutathione, a leukocyte-avid peptide comprising the amino acid sequence Tyr-Ile-Gly-Ser-Arg, the heparin-binding region of platelet factor-4 (PF-4) and a lysine-rich sequence (preferably P438H), atrial natriuretic peptide (ANP), a beta-amyloid peptide, a delta-opioid antagonist (preferably ITIPP (psi)), annexin-V, endothelin, interleukin (IL)-1, IL-1ra, IL-2, IL-8, leukotriene B4 (LTB4), a chemotactic peptide (preferably N-formyl-methionyl-leucyl-phenylalanine-lysine (fMLFK)), aGP IIb/IIa receptor antagonist (preferably DMP 444), epidermal growth factor, a human neutrophil elastase inhibitor (preferably EPI-HNE-2 or EPI-HNE-4), plasmin inhibitor, an antimicrobial peptide, apicidin P280, apicidin P274, a thrombospondin receptor (preferably TP1300), bitistatin, pituitary adenyl cyclase type I receptor (PAC1), fibrin alpha-chain, or their derivatives or analogs), an antibody (preferably monoclonal) or its fragment.

**ADMINISTRATION** - The dosage is 0.1-100 (preferably 250-5000) mg/kg/day orally, parenterally (e.g. by inhalation, intramuscularly, intraperitoneally, intravenously, subcutaneously or by ocular injection, topical drops or implant), nasally, vaginally, rectally, sublingually or topically.

**EXAMPLE** - Camptothecin (250 mg) and 4-dimethylaminopyridine (50 mg) were suspended in anhydrous pyridine (3 ml) and anhydrous methylene chloride (50 ml). Phosgene (750 ml of a 20% solution in toluene) was added, mixed for 2 hours and the mixture worked up to obtain camptothecin chloroformate (A) dissolved in dichloromethane (DCM). Rink amide (4-(2',4'-dimethoxyphenyl-Fmoc-(aminomethyl)phenoxyacetamido-norleucyl-methylbenzhydrylamine resin (0.063 mmol) was swollen in dimethylformamide (DMF) for 1 hour, filtered and an excess of 20% piperidine in DMF added. After mixing (2 minutes), the resin was filtered and an excess amount of 20% piperidine was again added and mixed (20 minutes) to ensure complete removal of the resin Fmoc group. After deprotection, the resin was washed with DMF and then 0.188 mmol each of the first protected amino acid, Fmoc-Thr(tBut), diisopropylcarbodiimide, and N-hydroxybenzotriazole monohydrate was dissolved in DMF and added to the resin, mixed for 1 hour and washed with DMF. - The Fmoc group was again removed by treatment with 20% piperidine/DMF solution and, following the same general coupling procedures, the following amino acids were successively reacted with the growing peptide chain: Fmoc-S-trityl-L-cysteine, Fmoc-O-t-butyl-L-threonine, N-alpha-Fmoc-N-eta-Boc-L-lysine, N-alpha- Fmoc-N-in-Boc-D-tryptophan, Fmoc-L-phenylalanine, Fmoc-S-trityl-L-cysteine, Fmoc-O-t-butyl-D-serine, Fmoc-O-t-butyl-D-tyrosine, N-alpha-Fmoc-Norleucine, Fmoc-O-t-butyl-D-serine and bromoacetic acid. After completion of bromoacetic acid coupling to peptidyl resin (3 equivalents), N-Boc-ethylene diamine was added in N-methyl-alpha-pyrrolidinone, mixed for 2 hours and then washed successively with DMF and DCM. (A) was added to the resin and the mixture worked up to obtain camptothecin-carbonyl-N-aminoethyl-glycine-D-tert-butyl-Ser-Nle-D-tert-butyl-Tyr-D-tert-butyl-Ser-S-trityl-Cys-Phe-D-Trp-epsilon-tert-butyl carbonyl-Lys-tert-butyl-Thr-S-trityl-Cys-tert-butyl-Thr-Rink-amide-resin.

ANS.DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR  
SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

**TITLE:** Sustained release apparatus, useful for treatment of humans or animals, comprises mini-tablet implants effective at lower dose than immediate release composition

**DERWENT CLASS:** A96; B07; C07; D16; D22; P32; P34

**INVENTOR:** BRANDON M; MARTINOD S R

**PATENT ASSIGNEE:** (BRAN-I) BRANDON M; (MART-I) MARTINOD S R; (SMAR-N) SMART DRUG SYSTEMS INC

**COUNTRY COUNT:** 99

**PATENT INFORMATION:**

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2003009833	A1	20030206	(200329)*	EN	43[0]		<--
EP 1411905	A1	20040428	(200429)	EN			
AU 2002344686	A1	20030217	(200452)	EN			<--
BR 2002010630	A	20040727	(200452)	PT			
JP 2004535473	W	20041125	(200477)	JA	70		
US 20040247643	A1	20041209	(200481)	EN			
CN 1536988	A	20041013	(200508)	ZH			
IN 2003DN02257	P1	20060120	(200615)	EN			
NZ 529858	A	20060224	(200619)	EN			

**APPLICATION DETAILS:**

PATENT NO	KIND	APPLICATION	DATE
WO 2003009833	A1	WO 2002-AU866	20020701
AU 2002344686	A1	AU 2002-344686	20020701
BR 2002010630	A	BR 2002-10630	20020701
CN 1536988	A	CN 2002-813118	20020701
EP 1411905	A1	EP 2002-742516	20020701
EP 1411905	A1	WO 2002-AU866	20020701
BR 2002010630	A	WO 2002-AU866	20020701
JP 2004535473	W	WO 2002-AU866	20020701
US 20040247643	A1	WO 2002-AU866	20020701
IN 2003DN02257	P1	WO 2002-AU866	20020701
JP 2004535473	W	JP 2003-515226	20020701
IN 2003DN02257	P1	IN 2003-DN2257	20031224
US 20040247643	A1	US 2004-482335	20040629
NZ 529858	A	NZ 2002-529858	20020701
NZ 529858	A	WO 2002-AU866	20020701

**FILING DETAILS:**

PATENT NO	KIND	PATENT NO
EP 1411905	A1	Based on
AU 2002344686	A1	WO 2003009833 A
BR 2002010630	A	WO 2003009833 A
JP 2004535473	W	WO 2003009833 A
NZ 529858	A	WO 2003009833 A

PRIORITY APPLN. INFO: AU 2001-6024 20019629

INT. PATENT CLASSIF.:

MAIN: A61K009-58  
 SECONDARY: A61K038-18; A61K038-19; A61K038-37; A61K038-43;  
 A61K039-002; A61K039-02; A61K039-12; A61K039-395  
 ; A61K047-48

IPC RECLASSIF.: A61K0031-365 [I,A]; A61K0031-365 [I,C]; A61K0031-7042 [I,C]; A61K0031-7048 [I,A]; A61K0045-00 [I,C]; A61K0009-52 [I,A]; A61K0009-52 [I,C]; A61K0009-58 [I,A]; A61M0037-00 [I,A]; A61M0037-00 [I,C]; A61P0001-00 [I,C]; A61P0001-04 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0033-00 [I,C]; A61P0033-10 [I,A]; A61P0035-00 [I,A]; A61P0035-00 [I,C]; A61P0037-00 [I,C]; A61P0037-06 [I,A]; A61P0007-00 [I,C]; A61P0007-04 [I,A];  
 ECLA: A61K0031-365; A61K0031-7048

## BASIC ABSTRACT:

WO 2003009833 A1 UPAB: 20050903

NOVELTY - Sustained release apparatus including at least one sustained release mini-tablet implant (A) that comprises at least one pharmaceutical (I) and a carrier. (A), or all (A) together, have significantly smaller size and/or payload relative to an equivalent immediate release treatment.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) Sustained release kit containing at least one (A) packaged for delivery in a single treatment;
- (2) Composition containing an anthelmintic (Ia) and a non-silicone carrier in unit dose form;
- (3) Sustained release composition containing a growth-enhancing compound (Ib) and a non-silicone carrier in unit dose form; and
- (4) Therapeutic or prophylactic treatment of humans or animals by administering the new apparatus.

## ACTIVITY - Anthelmintic.

No details of tests for anthelmintic activity are given.

## MECHANISM OF ACTION - None given in the source material.

USE - The apparatus is used to deliver a very wide range of (I) for treatment of humans, other mammals, birds, fish and reptiles, most especially the anthelmintic ivermectin, and growth-promoting agents, especially hormones.

ADVANTAGE - The apparatus requires significantly less (I) than known treatments to provide the desired effect, e.g. for porcine somatostatin, a dose of 12 mg in (A) is equivalent to seven 5 mg daily injections. (I) is released from (A) with essentially zero-order kinetics.

MANUAL CODE: CPI: A12-V; A12-V01; B01-D02; B04-C01D; B04-C03C;  
 B04-C03D; B04-G01; B04-H06; B04-N02; B05-A01B; B05-B01B;  
 B05-C07; B06-A03; B06-D01; B07-A02A; B07-A02B; B10-A09A;  
 B10-C04E; B12-M04; B14-B03; C01-D02; C04-C01D; C04-C03C;  
 C04-C03D; C04-G01; C04-H06; C04-N02; C05-A01B; C05-B01B;  
 C05-C07; C06-A03; C06-D01; C07-A02A; C07-A02B; C10-A09A;  
 C10-C04E; C12-M04; C14-B03; D09-C01

## TECH

PHARMACEUTICALS - Preferred Tablet: Each (A) contains 30-70 (preferably 30-50, wt.%) of the total payload of an equivalent immediate release treatment. (A) may also include a sustained release support, on or in which the active component is carried, and is particularly in the form of an (un)coated tablet or rod, or a matrix, particularly a silicone-coated compressed tablet or extruded rod. Where several (A) are used, each one, individually, is insufficient to provide the required blood level of (I). Particularly (A) are 0.1-0.5, especially 0.2-0.25, times the length and/or diameter of an immediate release tablet that provides the desired threshold level of (I) in the blood. It is generally cylindrical with cross-sectional diameter 0.1-4 mm and length 0.1-20, preferably 0.25-5, mm. Especially it has essentially zero-order release kinetics. The pharmaceutical carrier includes a water-soluble ingredient that is solid at body temperature, e.g. a synthetic polymer, sugar, amino acid, (in)organic salt or protein. This component is 10-30% of the active composition. The sustained release support is a biocompatible matrix or a solid absorption medium and a viscous polymer.

Preferred Kit: (A) are packaged in a biodegradable sheet of water-soluble material and the kit may include a delivery device, especially an injector for subcutaneous or intramuscular delivery.

Preferred Compositions: The composition of (2) is a compact or extruded tablet or rod containing a macrocyclic lactone and/or insect-growth regulator, also at least one water-soluble compound, particularly sucrose, sodium chloride and/or sodium deoxycholate. The compositions of (3) contain a hormone, growth factor or cell adhesion factor and water-soluble compounds as above. Especially it contains, by weight, 5-15% sodium chloride; 0.5-5% magnesium stearate and the balance recombinant porcine somatotropin.

Preferred Materials: (I) is any of a very wide range of therapeutic agents, e.g. analgesics; antibodies; antiinflammatories; contraceptives; diuretics; antidiabetics; anticancer agents; cytokines; vaccines (against many bacterial and viral pathogens); parasiticides, in particular the anthelminthic ivermectin or a natural or synthetic human, porcine, bovine or ovine growth hormone.

POLYMERS - Preferred Materials: Suitable carriers for lipophilic (I) are polyethylene glycol; polyoxystearate 40; and polyoxyethylene-polyoxypropylene glycol; and biocompatible materials for the sustained release support are polyesters; poly(amino acids); silicones; ethylene-vinyl acetate copolymers and poly(vinyl alcohol).

ORGANIC CHEMISTRY - Preferred Materials: Suitable carriers for lipophilic (I) are sucrose fatty acid esters; sodium lauryl sulfate; sodium oleate; and sodium deoxycholate.

ABEX EXAMPLE - Mini-tablets (2.95 mm diameter; 1 mm thick) were prepared by compressing a mixture of ivermectin (I') and sucrose in presence of magnesium stearate, and each contained 4.7 mg (I'). An implant of 21 of these tablets was injected intramuscularly into a cow. Blood serum levels of (I') were 4.9 mg/ml during the first 2 weeks; 2.8 mg/ml in week 3 and 2.2 mg/ml in week 4.

ANS DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 49 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 DOC. NO. CPI: C2003-032884 [12]  
 TITLE: Liquid alcohol or hydrocarbon-in-fluorocarbon  
 microemulsion useful as precursors for solid  
 nanoparticles for targeted delivery of drug molecule e.g.  
 plasmid DNA  
 DERWENT CLASS: A96; B04; D13; D16  
 INVENTOR: JAY M; MUMPER R J  
 PATENT ASSIGNEE: (KENT-C) UNIV KENTUCKY RES FOUND; (JAYM-I) JAY M;  
 (MUMP-I) MUMPER R J  
 COUNTRY COUNT: 99

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC	
WO 2002076441	A1 20021003 (200312)*	EN 114[35]				<--
EP 1379227	A1 20040114 (200410)	EN				<--
AU 2002250414	A1 20021008 (200432)	EN				
US 20060292183	A1 20061228 (200702)	EN				
US 7153525	B1 20061226 (200702)	EN				
US 20070154907	A1 20070705 (200746)	EN				

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002076441 A1		WO 2002-US8936	20020321
US 7153525 B1	Provisional	US 2000-191112P	20000322
US 20060292183 A1	Provisional	US 2000-191112P	20000322
US 7153525 B1		US 2001-812884	20010321
US 20060292183 A1		US 2001-812884	20010321
AU 2002250414 A1		AU 2002-250414	20020321
EP 1379227 A1		EP 2002-719324	20020321
EP 1379227 A1		WO 2002-US8936	20020321
US 20070154907 A1	Provisional	US 2000-191112P	20000322
US 20070154907 A1	Cont of	US 2001-812884	20010321
US 20070154907 A1		US 2006-558302	20061109

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1379227	A1	Based on
AU 2002250414	A1	Based on
US 20070154907	A1	Cont of
		WO 2002076441 A
		WO 2002076441 A
		US 7153525 B

PRIORITY APPLN. INFO: US 2001-812884 20010321  
US 2000-191112P 20000322  
 US 2006-558302 20061109

## INT. PATENT CLASSIF.:

MAIN: A61K031-03

IPC ORIGINAL: A61K0031-715 [I,A]; A61K0031-716 [I,A];  
A61K0039-395 [I,A]; A61K0048-00 [I,A];  
 A61K0009-00 [I,A]; A61K0009-14 [I,A]; B29B0009-00 [I,A];  
 C12N0015-87 [I,A]; C12N0015-87 [I,C]; C12Q0001-68 [I,A];  
 C12Q0001-68 [I,C]; G01N0033-53 [I,A]; G01N0033-53 [I,C]

## IPC RECLASSIF.:

A61K0031-00 [I,A]; A61K0031-00 [I,C]; A61K0031-711 [I,A];  
 A61K0031-711 [I,C]; A61K0031-713 [I,A]; A61K0031-713  
 [I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; A61K0009-107  
 [I,A]; A61K0009-107 [I,C]; A61K0009-51 [I,A];  
 A61K0009-51 [I,C]

ECLA: A61K0009-00M5; A61K0009-107D; A61K0009-51; A61K0031-00;  
 A61K0031-711; A61K0031-713; A61K0047-48W6; A61K0048-00;  
 C12N0015-87

ICO: K61K0009:107D

USCLASS NCLM: 424/489.000

NCLS: 264/005.000; 424/450.000; 424/499.000; 435/007.100;  
 435/459.000; 514/937.000; 514/939.000; 977/902.000;  
 977/924.000

## BASIC ABSTRACT:

WO 2002076441 A1 UPAB: 20050903

NOVELTY - Stable alcohol-in-fluorocarbon (A) or liquid hydrocarbon-in-fluorocarbon microemulsion (B) comprising an alcohol (a) or liquid hydrocarbon (a') dispersed phase, a fluorocarbon continuous phase (b), a molecule dissolved or dispersed in alcohol, a film-forming substance (d) dissolved or dispersed in (a) or (a') respectively, a surfactant and/or co-surfactant (e), and a cell-targeting agent (f), is new.

## DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) purifying a solid nanoparticle involving removing alcohol from (A) by evaporating or diluting with a solvent or solidifying the hydrocarbon of (B) into solid nanoparticles containing molecule so as to cure the

nanoparticle in a continuous phase, subjecting the cured nanoparticle to gel permeation or ultracentrifugation and treatment with a buffer to obtain a solid nanoparticle;

(2) a nanoparticle (C) prepared from oil-in-water microemulsion precursor comprises at least one liquid nanoparticle matrix (g), at least one surfactant and/or co-surfactant ('e') and a molecule; and

(3) preparation of a solid stable nanoparticle (C') involving melting (g) at 35 - 100degreesC to form a liquid dispersed phase, dispersing molecule into the liquid dispersed phase, which is further dispersed in the aqueous continuous phase to form a surfactant stabilized microemulsion and cooling the microemulsion while stirring to form (C') having a diameter of less than 300 nm, including molecule either entrapped in or adsorbed to (C').

#### ACTIVITY - Cytostatic.

#### MECHANISM OF ACTION - None given.

USE - (A) and (B) are useful for targeted delivery of molecule e.g. a drug molecule (such as plasmid DNA, oligonucleotide, peptide, protein, antibody, small drug molecule and a rare earth molecule), a food, a magnet and a sensor molecule (that responds in a controlled and predictable manner to changes in temperature, pH, pressure, or the presence of another molecule), gadolinium, its complex or derivative in vivo, such as dendritic cells, hepatocytes, tumors or brain (all claimed).

ADVANTAGE - The combination has advantages of both solid nanoparticles and microemulsions to produce one pharmaceutically engineered gene delivery system, while avoiding problems associated with polyelectrolyte complexation. The nanoparticle systems can be engineered rapidly, reproducibly, and cost-effectively from the microemulsion precursors, in a one-step process and contained in one manufacturing vessel, vial or container, compared to the prior art methods. The solid nanoparticles are stable in biological fluids. The microemulsions have increased solubility and stability of drugs incorporated into the dispersed phase, increased absorption of drugs across biological membranes, ease and economy of scale-up, due to the requirement of inexpensive mixing equipment, and rapid assessment of the physical stability of the microemulsion, due to inherent clarity of the system. The ethanol/fluorocarbon microemulsion precursor comprises all the potentially biocompatible ingredients, which may not be removed when the solid nanoparticles are cured and isolated, the emulsion is well-defined and contains uniform nanoparticles (5 - 300 nm), reproducible to prepare without the use of high-torque mechanical mixing, microfluidization or homogenization, the formed solid nanoparticles have superior in vivo stability, and the cell-specific ligands can be easily incorporated into the system during or after the engineering process. In liquid hydrocarbon-in-water microemulsion, no additional material such as water is required to be added to form the microemulsion to cure the solid nanoparticles, but only cooling the microemulsion, high entrapment efficiency is achieved since the dispersed droplets are composed entirely of the matrix material, the dispersed phase is not limited to ethanol, and no organic solvents are needed to form the microemulsion precursors. MANUAL CODE: CPI: A12-V01; B03-B; B04-B01C; B04-B03C; B04-C02;

B04-C02A2; B04-C03C; B04-E08; B04-G01; B04-H06D;  
 B04-J04A; B04-N03; B04-N04; B04-N06; B05-B01P; B06-D09;  
 B10-A07; B10-A22; B10-C04E; B10-E04D; B10-H02B; B12-M03;  
 B12-M09; D03-H01N; D05-B; D05-C11; D05-H11; D05-H12D1;  
 D05-H12E

#### TECH

ORGANIC CHEMISTRY - Preferred Components: (a) is ethanol. (a') is solid at 25degreesC, has a melting point of 35 - 100degreesC, is water-insoluble, and is amphiphatic having both hydrophobic and hydrophilic moieties. (b) is perflubron. (d) is ethylcellulose. (e) is a fluorosurfactant. (f) is selected from asialofetuin, mannan, mannose, folate or a saccharide. (e') is selected from hexadecyltrimethylammonium bromide, fatty alcohol and/or their derivatives. When (C) is anionic, it further comprises a positively charged drug or antigen coating (preferably

Tat peptide from HIV or nerve-growth factor). When (C) is cationic, it further comprises a negatively-charged drug or antigen coating (preferably DNA).

Preferred Composition: The oil phase is present as liquid droplets having a diameter of less than 100 nm. The continuous phase comprises water or an aqueous buffer present at concentration of greater than 95 w/w%. (e') is present at a concentration of 1 - 5000 mM in the microemulsion. The total concentration of molecule is 20 mug/ml - 5 mg/ml.

BIOLOGY - Preferred Components: (f) is an antibody. (C) is coated with a cell-specific ligand (h) comprising an antibody, carbohydrate, peptide, protein and/or their derivatives.

Preferred Method: (C) is coated with (h) comprising a mannan or peptide for targeting dendritic cells, a protein including asialofetuin, a polysaccharide including pullulan for targeting hepatocytes, folate and thiamine for targeting tumors, or choline or its derivative for targeting brain.

POLYMERS - Preferred Components: (g) is selected from emulsifying wax, polyoxyethylene sorbitan fatty acid ester, polyoxyethylene alkyl ether, polyoxyethylene stearate, phospholipids, fatty acid or fatty acid alcohol and/or their derivatives. (e') is selected from polyoxyethylene alkyl ether, polyoxyethylene sorbitan fatty acid ester, polyoxyethylene stearate and/or their derivatives.

Preferred Composition: (g) and (e') is present at a concentration of (0.1 - 30) mg/ml.

**ABEX ADMINISTRATION** - (C) is administered topically, intranasally, subcutaneously, intramuscularly, intravenously or orally (all claimed).

**EXAMPLE - Emulsifying wax** (2 mg) was placed into six-7 ml glass scintillation vials. After melting at 50 - 55degreesC, water was added to form a homogenous milky slurry. Different volumes of a hexadecyltrimethylammonium bromide (CTAB) stock solution (50 mM in water) were added while stirring to obtain a final CTAB concentration of 5 - 30 mM. After 3 - 5 minutes, the milky slurry turned clear or stayed cloudy, depending on the amount of CTAB used. The droplet size of the microemulsion was measured at 55degreesC, microemulsions were then cooled down to room temperature while stirring to form nanoparticles. The nanoparticles suspension was diluted 10 times with water and particle size was measured. The droplet size of the warm microemulsions at 55degreesC were in the range of 30 - 70 nm and cured nanoparticles at 25degreesC were in the range of 60 - 120 nm. Thus the cationic nanoparticles comprising emulsifying wax (6 mg/ml) in water containing a final concentration of 15 mM CTAB were prepared, and free CTAB was separated from the cured nanoparticles using a Sephadex G-75 column. The particle size and zeta potential of the purified cationic nanoparticles was measured and found to be 99+/-27 nm and 35.8+/-2.3 mV, respectively. Plasmid DNA (CMV-beta-galactosidase) was coated on the surface of the nanoparticles by gently mixing the required amount of pDNA and nanoparticles suspension to obtain a final pDNA concentration of 400 mug/ml. After the addition of pDNA to the cationic nanoparticles, the particle size and zeta potential of the pDNA-coated nanoparticles was 245+/-25 nm and -47.7+/-1.2 mV, respectively. The change in particle size and zeta potential demonstrated that pDNA was successfully coated on the cationic nanoparticles. pDNA-coated nanoparticles and 'naked' DNA were administered to Balb/C mice (10 - 12 weeks old) by three different routes (intramuscular injection; subcutaneous injection, or by topical application to skin) on day 0, 7, and 14. The pDNA dose on each day was 40 mug. On day 28, the IgG titers in sera were determined. Sera IgG titers at day 28 resulting from immunization by pDNA-coated nanoparticles and 'naked' DNA after intramuscular and subcutaneous administration were comparable. The topical administration of formulations to skin was more effective. Mice immunized with pDNA-coated nanoparticles had an approximately 10-fold increase in

IgG titers over mice immunized with 'naked' pDNA.  
 AN.S DCR-184587  
 CN.P ANTIBODIES SUBSTANCE DESCRIPTOR  
 SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 50 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 DOC. NO. CPI: C2001-163566 [61]  
 TITLE: Liquid biodegradable block copolymer composition, useful  
       as a drug delivery system for e.g. growth hormones,  
       antibacterial agents, anticancer or antiinflammatory  
       agents  
 DERWENT CLASS: A96; B05; B07; P34  
 INVENTOR: CHOI I; CHOI I J; SEO M; SEO M H; SUH M H  
 PATENT ASSIGNEE: (CHOI-I) CHOI I; (SAMY-N) SAMYANG CORP; (SEOM-I) SEO M;  
                   (SAMY-N) SANYANG CORP  
 COUNTRY COUNT: 93

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2001045742	A1	20010628	(200161)*	EN	37[1]		<--
AU 2001025550	A	20010703	(200164)	EN			<--
KR 2001063314	A	20010709	(200176)	KO			<--
EP 1244471	A1	20021002	(200265)	EN			<--
US 20030082234	A1	20030501	(200331)	EN			<--
JP 2003517886	W	20030603	(200346)	JA	35		<--
CN 1413118	A	20030423	(200347)	ZH			<--
MX 2002006272	A1	20021201	(200377)	ES			<--
NZ 519555	A	20031219	(200404)	EN			<--
KR 416242	B	20040131	(200428)	KO			
JP 3614820	B2	20050126	(200510)	JA	18		
AU 779713	B2	20050210	(200527)	EN			
US 6916788	B2	20050712	(200546)	EN			
MX 233251	B	20051220	(200637)	ES			
CN 1204924	C	20050608	(200655)	ZH			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001045742 A1		WO 2000-KR1508	20001221
KR 2001063314 A		KR 1999-60349	19991222
KR 416242 B		KR 1999-60349	19991222
CN 1413118 A		CN 2000-817580	20001221
EP 1244471 A1		EP 2000-989005	20001221
NZ 519555 A		NZ 2000-519555	20001221
EP 1244471 A1		WO 2000-KR1508	20001221
US 20030082234 A1		WO 2000-KR1508	20001221
JP 2003517886 W		WO 2000-KR1508	20001221
MX 2002006272 A1		WO 2000-KR1508	20001221
NZ 519555 A		WO 2000-KR1508	20001221
JP 3614820 B2		WO 2000-KR1508	20001221
US 6916788 B2		WO 2000-KR1508	20001221
MX 233251 B		WO 2000-KR1508	20001221
AU 2001025550 A		AU 2001-25550	20001221
AU 779713 B2		AU 2001-25550	20001221

JP 2003517886 W		JP 2001-546681 20001221
JP 3614820 B2		JP 2001-546681 20001221
MX 2002006272 A1		MX 2002-6272 20020621
MX 233251 B		MX 2002-6272 20020621
US 20030082234 A1		US 2002-169012 20020622
US 6916788 B2		US 2002-169012 20020622
CN 1204924 C		CN 2000-817580 20001221

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 779713	B2	Previous Publ
JP 3614820	B2	Previous Publ
KR 416242	B	Previous Publ
AU 2001025550	A	Based on
EP 1244471	A1	Based on
JP 2003517886	W	Based on
MX 2002006272	A1	Based on
NZ 519555	A	Based on
JP 3614820	B2	Based on
AU 779713	B2	Based on
US 6916788	B2	Based on
MX 233251	B	Based on
		WO 2001045742

PRIORITY APPLN. INFO: KR 1999-60349 19991222

## INT. PATENT CLASSIF.:

## MAIN:

A61K047-30; A61L027-00  
 A61K0031-167 [I,A]; A61K0031-167 [I,C]; A61K0031-185 [I,C]; A61K0031-192 [I,A]; A61K0031-337 [I,A];  
 A61K0031-337 [I,C]; A61K0031-403 [I,C]; A61K0031-405 [I,A]; A61K0031-407 [I,A]; A61K0031-407 [I,C];  
 A61K0031-513 [I,A]; A61K0031-513 [I,C]; A61K0031-545 [I,A]; A61K0031-545 [I,C]; A61K0031-60 [I,C];  
 A61K0031-616 [I,A]; A61K0031-65 [I,A]; A61K0031-65 [I,C]; A61K0031-662 [I,A]; A61K0031-662 [I,C]; A61K0031-7028 [I,C];  
 A61K0031-704 [I,A]; A61K0031-7042 [I,C]; A61K0031-7048 [I,A]; A61K0031-7135 [I,A]; A61K0031-7135 [I,C];  
 A61K0038-22 [I,A]; A61K0038-22 [I,C]; A61K0038-27 [I,A]; A61K0038-27 [I,C]; A61K0039-00 [I,A]; A61K0039-00 [I,C];  
 A61K0039-395 [I,A]; A61K0039-395 [I,C]; A61K0047-02 [I,C]; A61K0047-04 [I,A]; A61K0047-10 [I,A];  
 A61K0047-10 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C]; A61K0047-20 [I,A]; A61K0047-20 [I,C]; A61K0047-26 [I,A];  
 A61K0047-26 [I,C]; A61K0047-32 [I,A]; A61K0047-32 [I,C]; A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36 [I,A];  
 A61K0047-36 [I,C]; A61K0047-38 [I,A]; A61K0047-38 [I,C]; A61K0047-40 [I,A]; A61K0047-40 [I,C]; A61K0047-42 [I,A];  
 A61K0047-42 [I,C]; A61K0009-00 [I,A]; A61K0009-00 [I,C]; A61L0027-00 [I,A]; A61L0027-00 [I,C]; A61P0029-00 [I,A];  
 A61P0029-00 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; A61P0031-10 [I,A]; A61P0035-00 [I,A]; A61P0035-00 [I,C];  
 A61P0005-00 [I,A]; A61P0005-00 [I,C]

ECLA: A61K0009-00MD; A61K0047-10; A61K0047-32; A61K0047-34

USCLASS NCLM: 424/486.000

NCLS: 424/486.000; 514/012.000

## BASIC ABSTRACT:

WO 2001045742 A1 UPAB: 20060117

NOVELTY - A liquid polymeric composition capable of forming a physiologically active substance-containing implant in a living body is new.

DETAILED DESCRIPTION - A liquid polymeric composition capable of forming a physiologically active substance-containing implant in a living body comprises a water-soluble liquid polyethylene glycol derivative, a block copolymer which is insoluble in water but soluble in the polyethylene glycol derivative and an active substance.

INDEPENDENT CLAIMS are included for:

- (1) an implant formed from the composition; and
- (2) processes for preparing the composition.

USE - The composition is useful for forming active substance containing implants for drug delivery when injected into a body. MANUAL CODE: CPI: A12-V01; A12-V02; B02-Z; B04-C02A; B04-C02B1;

B04-C03; B04-C03C; B04-C03D; B04-D01; B04-H02B; B04-H05; B04-H06; B04-J05; B11-C04A; B12-M09; B14-A01; B14-C03; B14-H01

TECH

ORGANIC CHEMISTRY - Preferred Process: The composition is preferably made by dissolving the polyethylene glycol derivative, the block copolymer and the active substance in an organic solvent (especially acetonitrile, acetone, acetic acid, dimethylacetamide, ethanol, 2-propanol or dioxane) or a mixture of an organic solvent and water (1:4 to 4:1), sterilizing the solution by filtration and evaporating or lyophilizing the solution.

PHARMACEUTICALS - Preferred Composition: The composition preferably contains 10 to 95%, especially 30 to 70%, of the polyethylene glycol derivative, 5 to 80%, especially 20 to 50%, of the block copolymer and 1 to 40%, especially 1 to 30%, of the active substance. The block copolymer is preferably a di- or tri-block copolymer comprising a hydrophobic polymer A block and a hydrophilic polymer B block component. The hydrophobic polymer is preferably L-polylactide, D,L-polylactide, a copolymer of L- or D,L-lactide with glycolide, polyglycolide, polycaprolactone, a copolymer of lactic acid with caprolactone, polyhydroxy butyric acid, a copolymer of 1,4-dioxan-2-one with lactide or poly(p-dioxanone) with an average molecular weight of 500 to 25,000Da. The hydrophilic polymer is preferably polyethylene glycol or a copolymer of ethylene glycol and propylene glycol with an average molecular weight of 100 to 10,000Da. The block copolymer preferably comprises 20 to 80% of the hydrophilic polymer. The polyethylene glycol derivative is preferably of formula (I) or (II) and has an average molecular weight of 200 to 1,000Da. R1-X-CH2CH2(OCH2CH2)<sub>1-X-R1</sub> (I) or



R1 = H, (CH<sub>2</sub>)<sub>m</sub>CH<sub>3</sub> or CO(CH<sub>2</sub>)<sub>m</sub>CH<sub>3</sub>;

m = 0 to 17;

X = O, NH or S;

l = 1 to 100;

R2 = (CH<sub>2</sub>)<sub>x</sub>CH<sub>3</sub>, H, Na, Ca, Mg or Zn;

x = 0 to 17;

p = 1 to 100; and

q = 0 to 6.

The active substance is preferably a peptide or protein drug (especially human growth hormone, porcine growth hormone, leukocyte growth factor, erythrocyte growth factor, macrophage growth factor, tumor necrosis factor, epithelial growth factor, platelet-derived growth factor, interferon-alpha, beta or gamma, interleukin-2, calcitonin, nerve growth factor, growth hormone releasing factors, angiotensin, luteinizing hormone releasing hormone (LHRH), LHRH agonist, insulin, thyrotropin releasing hormone, angiostatin, endostatin, somatostatin, glucagon, endorphin, bacitracin, mergain, colistin, monoclonal antibody, vaccine or bone growth factor), antibacterial agent (minocycline, tetracycline, ofloxacin, phosphomycin, mergain, profloxacin, ampicillin,

penicillin, doxycycline, thienamycin, cephalosporin, norcadicin, gentamycin, neomycin, kanamycin, paromomycin, amikacin, tobramycin, dibekacin, cefotaxim, cephaclor, erythromycin, ciprofloxacin, levofloxacin, enoxacin, vancomycin, imiphenem or fucidic acid), anticancer agent (paclitaxel, taxotare, adriamycin, endostatin, angiostatin, mitomycin, bleomycin, cisplatin, carboplatin, doxorubicin, daunorubicin, idarubicin, 5-fluorouracil, methotrexate or actinomycin-D) or antiinflammatory agent (lysosome, acetaminophen, aspirin, ibuprofen, diclofenac, indometacin, piroxicam, fenoprofen, flubiprofen, ketoprofen, naproxen, suprofen, loxoprofen, cinoxicam or tenoxicam). The composition may include 1 to 10% of surfactants (especially polysorbate, sodium dodecylsulfate, polyvinyl pyrrolidone, poloxamers, glyceryl monooleate, glyceryl monostearate or polyoxyethylene alkyl ether), inorganic salts (sodium chloride, calcium chloride, zinc chloride, magnesium chloride, calcium carbonate, zinc carbonate, zinc acetate, zinc lactate, magnesium hydroxide, aluminum chloride, aluminum hydroxide or zinc oxide), sugars (especially mannitol, sorbitol, glucose, xylitol, trehalose, sorbose, sucrose, galactose, dextran, dextrose, fructose or lactose) and/or natural polymers (especially cyclodextrin, gelatin, albumin, hyaluronic acid, chitosan or sodium carboxymethylcellulose).

**ABEX EXAMPLE - Lactide** (14.19 g), glycolide (3.81 g), polyethylene glycol 1000 (7.5 g) and tin octoate (0.18 g) were heated to 120 to 145 degrees C for 12 hours and dissolved in CHCl<sub>3</sub>. The solution was added to diethyl ether (Et<sub>2</sub>O) and the resulting polymer was collected, dissolved in chloroform (CHCl<sub>3</sub>) and reprecipitated by addition to Et<sub>2</sub>O. The precipitate was collected and dried under vacuum to give the block copolymer. Polyethylene glycol 300 (30 g), acetic anhydride (24 g) and anhydrous zinc dichloride (0.5 g) were heated to reflux for 12 hours and dissolved in methylene chloride (CH<sub>2</sub>Cl<sub>2</sub>). The mixture was added to Et<sub>2</sub>O and the precipitate was collected, purified with Et<sub>2</sub>O and dried under vacuum. Human growth hormone (100 mg), block copolymer (400 mg), polyethylene glycol 300 (450 mg) and gelatin (50 mg) were dissolved in 60% aqueous acetic acid and filtered through a 0.22 microm filter. The solution was lyophilized and filled into single dose sterile disposable syringes.

ANS DCR-89804

CN P CALCITONIN

SDCN R01874

SDRN 1874

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 51 OF 84	WPIX COPYRIGHT 2008	THE THOMSON CORP on STN
DOC. NO. CPI:	C2000-151720 [45]	
DOC. NO. NON-CPI:	N2000-374010 [45]	
TITLE:	Particle for oral administration of biopolymeric drugs, e.g. proteins or nucleic acids, comprises active ingredient in a substrate and a coating of mucoadhesive for attachment to intestinal mucosa	
DERWENT CLASS:	A96; B04; B05; B07; D16; P34	
INVENTOR:	DEHLINGER P; DEHLINGER P J; FERRARI M; FRIEND D; FRIEND D R; GROVE C; GROVE C F; MARTIN F; MARTIN F J	
PATENT ASSIGNEE:	(REGC-C) UNIV CALIFORNIA; (IMED-N) IMEDD	
COUNTRY COUNT:	23	

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
WO 2000041740	A2 20000720 (200045)*	EN	48[8]		

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AU 2000024947	A	20000801 (200054)	EN	<--
EP 1140024	A2	20011010 (200167)	EN	<--
US 6355270	B1	20020312 (200221)	EN	<--
JP 2002534485	W	20021015 (200282)	JA 54	<--
EP 1140024	B1	20070829 (200757)	EN	
DE 60036193	E	20071011 (200768)	DE	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000041740 A2		WO 2000-US362	20000107
US 6355270 B1	Provisional	US 1999-115420P	19990111
US 6355270 B1	Provisional	US 1999-115424P	19990111
US 6355270 B1		US 2000-479389	20000106
AU 2000024947 A		AU 2000-24947	20000107
DE 60036193 E		DE 2000-636193	20000107
EP 1140024 A2		EP 2000-903159	20000107
EP 1140024 B1		EP 2000-903159	20000107
DE 60036193 E		EP 2000-903159	20000107
JP 2002534485 W		JP 2000-593349	20000107
EP 1140024 A2		WO 2000-US362	20000107
JP 2002534485 W		WO 2000-US362	20000107
EP 1140024 B1		WO 2000-US362	20000107
DE 60036193 E		WO 2000-US362	20000107

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 60036193	E	Based on EP 1140024 A
AU 2000024947	A	Based on WO 2000041740 A
EP 1140024	A2	Based on WO 2000041740 A
JP 2002534485	W	Based on WO 2000041740 A
EP 1140024	B1	Based on WO 2000041740 A
DE 60036193	E	Based on WO 2000041740 A

PRIORITY APPLN. INFO: US 1999-115424P 19990111  
 US 1999-115420P 19990111  
 US 2000-479389 20000106

## INT. PATENT CLASSIF.:

MAIN: A61K038-00; A61M  
 IPC ORIGINAL: A61K038-18 [I,A]; A61K038-18 [I,A]; A61K038-18 [I,C];  
 A61K038-18 [I,C]; A61K038-20 [I,A]; A61K038-20 [I,A];  
 A61K038-20 [I,C]; A61K038-20 [I,C]; A61K038-21 [I,A];  
 A61K038-21 [I,A]; A61K038-21 [I,C]; A61K038-21 [I,C];  
 A61K038-28 [I,A]; A61K038-28 [I,A]; A61K038-28 [I,C];  
 A61K038-28 [I,C]; A61K047-46 [I,A]; A61K047-46 [I,A];  
 A61K047-46 [I,C]; A61K047-46 [I,C]; A61K009-16 [I,A];  
 A61K009-16 [I,A]; A61K009-16 [I,C]; A61K009-16 [I,C];  
 A61K0031-7088 [I,A]; A61K0031-7088 [I,C]; A61K0038-00

[I,A]; A61K0038-00 [I,C]; A61K0038-21 [I,A]; A61K0038-21  
 [I,C]; A61K0038-22 [I,A]; A61K0038-22 [I,C]; A61K0038-26  
 [I,A]; A61K0038-26 [I,C]; A61K0038-28 [I,A]; A61K0038-28  
 [I,C]; A61K0039-395 [I,A]; A61K0039-395  
[I,C]; A61K0047-10 [I,A]; A61K0047-10 [I,C]; A61K0047-14  
 [I,A]; A61K0047-14 [I,C]; A61K0047-22 [I,A]; A61K0047-22  
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[I,A]; A61K0047-42 [I,C]; A61K0047-44 [I,A]; A61K0047-44  
 [I,C]; A61K0047-48 [I,A]; A61K0047-48 [I,C]; A61K0009-14  
 [I,A]; A61K0009-14 [I,C]; A61K0009-16 [I,A]; A61K0009-16  
 [I,C]; A61K0009-26 [I,A]; A61K0009-26 [I,C]; A61K0009-48  
 [I,A]; A61K0009-48 [I,C]; A61K0009-52 [I,A]; A61K0009-52  
 [I,C]; A61P0035-00 [I,A]; A61P0035-00 [I,C]; A61P0043-00  
 [I,A]; A61P0043-00 [I,C]; C12N0015-09 [I,A]; C12N0015-09  
 [I,C]; G03F0007-0028; A61K0009-16K2; A61K0009-16P4;

ECLA: A61K0009-48Z; G03F0007-00

USCLASS NCLM:

424/489.000

NCLS:

424/185.100; 424/450.000; 424/451.000; 514/002.000;  
 514/021.000; 530/300.000; 530/350.000

#### BASIC ABSTRACT:

WO 2000041740 A2 UPAB: 20071024

NOVELTY - Particle (A) for oral delivery of a biopolymeric drug (I) (e.g. polypeptide, protein or nucleic acid), comprising a substrate having at least 1 reservoir containing (I) in releasable form and opening to 1 face of the substrate, which is coated with a mucoadhesive agent (II) for the attachment of (A) to the intestinal mucosa so that (I) is released directly into the lining, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an oral composition containing many (A); and  
 (2) a microfabrication method comprising exposing a sheet of particle-forming material to a photoablative light source through a mask, so that a network pattern corresponding to the required shape and size of (A) is produced, and continuing exposure until (A) are formed.

USE - (A) are used for the oral delivery of (I) to the intestines, e.g., the delivery of erythropoietin (for treating anemia), interferons (hepatitis), interleukins (cancer), insulin (diabetes mellitus), calcitonin (osteoporosis) and antisense oligonucleotides (cancer, infections, inflammation).

ADVANTAGE - (II) ensure attachment to the intestines and their shape, size, density and composition can be adjusted to control contact with the gut wall. (A) are too large to undergo endocytosis by gut epithelial cells and they can be labeled for detection or visualization. They may also include penetration enhancers; protease inhibitors or agents that control release rate of (I), to improve bioavailability.

MANUAL CODE: CPI: A12-V01; B04-C02A; B04-C02A3; B04-C02B; B04-C03B;  
 B04-E01; B04-E06; B04-H02; B04-H05; B04-J03A; B04-N04;  
 B11-C06; B11-C09; B12-M11E; B14-A01; B14-A02; B14-C03;  
 B14-H01B; B14-N01; B14-S04; B14-S11; D05-H07; D05-H12A;  
 D05-H12B; D05-H12D2

#### TECH

BIOTECHNOLOGY - Preferred Materials: (I) is granulocyte-macrophage colony-stimulating factor (GM-CSF), an interferon, interleukin, vasopressin, growth hormone releasing factor, relaxin, somatostatin, antibody, insulin, arterial natriuretic factor, glucagon, desmopressin, calcitonin, angiogenic factors (e.g. VEGF), LHRH analogs, peptide antigens, vaccines and (antisense) oligonucleotides. (II) may be e.g. an agglutinin from wheat germ, Ulex europaeus or Phaseolus vulgaris, lectins of asparagus pea (*Lotus tetragonolobus*), tomato or Mycoplasma gallisepticum, the B-subunit of cholera toxin, *Escherichia coli* type 7 fimbriae, vitamin B12, riboflavin, folate or iron/transferrin.

PHARMACEUTICALS - Preferred Particles: The particles are disks 0.1-1 mm in diameter and with a density of 0.95-1.05 g/cc. Additional reservoirs may also be included containing a permeation enhancer (e.g. zonula occludens toxin of *Vibrio cholerae*), or a peptidase inhibitor

(e.g. aprotinin). The reservoir containing (I) may also include an agent that delays the dissolution or release of (I), preferably gelatin, polyethylene glycol, a fatty acid and/or triglyceride, polyvinyl pyrrolidone, starch, cellulose ester (e.g. HPMC), hydrocolloidal gum and/or mucilages (e.g. gum arabic, guar gum, gum, tragacanth), wax (e.g. carnuba, bees, polyacrylic acid derivatives and esters), shellac, cellulose acetate, phthalate or carboxy methylcellulose. The substrate is particularly polycarbonate or polyester and the face not coated with (II) is covered by a non-porous laminate backing.

**Preferred Composition:** The particles preferably comprise an enteric coating that encapsulates the particles, remains intact in esophagus and stomach but dissolves, at pH 6-6.8, in the intestinal lumen. Alternatively the ChronoSet (RTM) system is used to provide release after a selected time, particularly in the middle of the intestines.

**Preparation:** The sheet of material is grafted, on the face to be coated with (II), with a layer of reactive amino or thiol groups by plasma (glow) discharge.

**POLYMERS - Preferred Substrate:** Suitable substrate materials are polycarbonate and polyester. A preferred enteric coating is Eudragit L100 or S100 (methacrylic acid-methacrylate copolymers).

**Preferred Excipients:** Suitable polymeric excipients are polyethylene glycol, polyvinyl pyrrolidone, polyacrylic acid derivatives and esters, cellulose acetate-phthalate and carboxymethyl cellulose.

**ABEX ADMINISTRATION** - The particles are useful for the oral delivery of therapeutic compounds.

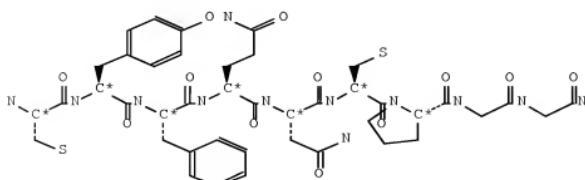
**EXAMPLE** - A roll of 50-75 micro m thick track-etch polycarbonate, containing pores (reservoirs) that are 10-12 micro m in diameter and 12-25 micro m deep, was exposed to an ammonia plasma to introduce primary amino groups at one surface, then reacted with a heterobifunctional reagent to generate thiol-reactive maleimide groups. The material was then exposed to a solution of lectin (from wheat germ) that had been thiolated, washed and then dried. The reservoirs were filled with a 50 mg/ml solution of erythropoietin in phosphate-buffered saline, under reduced pressure to expel air, and dried and the sheet was then passed through a disk-punch apparatus to produce particles.

AN.S DCR-110049

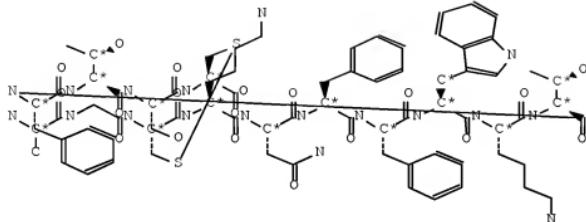
CN.P VASOPRESSIN

CN.S 1-[19-Amino-13-benzyl-10-(2-carbamoyl-ethyl)-7-carbamoylmethyl-16-(4-hydroxybenzyl)-6,9,12,15,18-pentaoxo-1,2-dithia-5,8,11,14,17-pentaaza-cycloleicosane-4-carbonyl]-pyrrolidine-2-carboxylic acid [5-amino-1-(carbamoylmethyl-carbamoyl)-pentyl]-amide

SDCN R06995



AN.S DCR-107421  
 CN.P SOMATOSTATIN  
 SDCN R02073  
 SDRN 2073



AN.S DCR-184587  
 CN.P ANTIBODIES SUBSTANCE DESCRIPTOR  
 SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 52 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 DOC. NO. CPI: C2000-137752 [39]  
 TITLE: New aerosol formulations for the delivery of agents such as peptidic drugs, vaccines and hormones, containing a phospholipid and a membrane-mimetic amphiphile to facilitate absorption  
 DERNWENT CLASS: A96; B04; B05; B07; D16  
 INVENTOR: MODI P; WEBB S R  
 PATENT ASSIGNEE: (GENE-N) GENEREX PHARM INC  
 COUNTRY COUNT: 89

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC	
WO 2000037053	A1 20000629 (200039)*	EN 36[0]			<--	
AU 2000018520	A 20000712 (200048)	EN			<--	
US 6271200	B1 20010807 (200147)	EN			<--	
EP 1140020	A1 20011010 (200167)	EN			<--	
NZ 512046	A 20020426 (200236)	EN			<--	
MX 2001006379	A1 20020501 (200368)	ES			<--	
EP 1140020	B1 20040303 (200417)	EN			<--	
DE 69915347	E 20040408 (200425)	DE			<--	
JP 2004537493	W 20041216 (200482)	JA 63				
MX 230980	B 20050930 (200617)	ES				

**APPLICATION DETAILS:**

PATENT NO	KIND	APPLICATION	DATE
WO 2000037053	A1	WO 1999-CA1233	19991216
US 6271200	B1 Provisional	US 1998-113242P	19981221
US 6271200	B1	US 1999-397701	19990916
DE 69915347	E	DE 1999-615347	19991216
EP 1140020	A1	EP 1999-962011	19991216
EP 1140020	B1	EP 1999-962011	19991216
DE 69915347	E	EP 1999-962011	19991216
NZ 512046	A	NZ 1999-512046	19991216
EP 1140020	A1	WO 1999-CA1233	19991216
NZ 512046	A	WO 1999-CA1233	19991216
EP 1140020	B1	WO 1999-CA1233	19991216
DE 69915347	E	WO 1999-CA1233	19991216
JP 2004537493	W	WO 1999-CA1233	19991216
MX 2001006379	A1	WO 1999-CA1233	19991216
AU 2000018520	A	WO 1999-CA1233	19991216
JP 2004537493	W	AU 2000-18520	19991216
MX 2001006379	A1	JP 2000-589164	19991216
MX 230980	B	MX 2001-6379	20010621
MX 230980	B	WO 1999-CA1233	19991218
		MX 2001-6379	20010621

**FILING DETAILS:**

PATENT NO	KIND		PATENT NO
DE 69915347	E	Based on	EP 1140020
AU 2000018520	A	Based on	WO 2000037053
EP 1140020	A1	Based on	WO 2000037053
NZ 512046	A	Based on	WO 2000037053
MX 2001006379	A1	Based on	WO 2000037053
EP 1140020	B1	Based on	WO 2000037053
DE 69915347	E	Based on	WO 2000037053
JP 2004537493	W	Based on	WO 2000037053
MX 230980	B	Based on	WO 2000037053

PRIORITY APPLN. INFO: US 1999-397701 19990916  
US 1998-113242P 19981221

INT. PATENT CLASSIF.:

MAIN: A61K009-12

IPC RECLASSIF.: A61K0031-7105 [I,A]; A61K0031-7105 [I,C]; A61K0031-711  
[I,A]; A61K0031-711 [I,C]; A61K0038-00 [I,A]; A61K0038-08  
[I,C]; A61K0038-21 [I,A]; A61K0038-21 [I,C]; A61K0038-22  
[I,A]; A61K0038-22 [I,C]; A61K0038-23 [I,A]; A61K0038-23  
[I,C]; A61K0038-26 [I,A]; A61K0038-26 [I,C]; A61K0038-27  
[I,A]; A61K0038-27 [I,C]; A61K0038-28 [I,A]; A61K0038-28  
[I,C]; A61K0039-00 [I,A]; A61K0039-00 [I,C];  
**A61K0039-395** [I,A]; **A61K0039-395** [I,C];  
A61K0045-00 [I,A]; A61K0045-00 [I,C]; A61K0047-06 [I,A];  
A61K0047-06 [I,C]; A61K0047-08 [I,A]; A61K0047-08 [I,C];  
A61K0047-10 [I,A]; A61K0047-10 [I,C]; A61K0047-12 [I,A];  
A61K0047-12 [I,C]; A61K0047-16 [I,A]; A61K0047-16 [I,C];  
A61K0047-18 [I,A]; A61K0047-20 [I,A]; A61K0047-20 [I,C];  
A61K0047-24 [I,A]; A61K0047-24 [I,C]; A61K0047-34 [I,A];  
A61K0047-34 [I,C]; A61K0047-38 [I,A]; A61K0047-38 [I,C];  
A61K0047-44 [I,A]; A61K0047-44 [I,C]; A61K0048-00 [I,A];  
A61K0048-00 [I,C]; A61K009-00 [I,A]; A61K009-00 [I,C];

A61K0009-12 [I,A]; A61K0009-12 [I,C]; A61K0009-127 [I,A];  
 A61K0009-127 [I,C]; A61K0009-52 [I,C]; A61K0009-66 [I,A];  
 A61P0019-00 [I,C]; A61P0019-10 [I,A]; A61P0029-00 [I,A];  
 A61P0029-00 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A];  
 A61P0037-00 [I,A]; A61P0037-00 [I,C]; A61P0005-00 [I,C];  
 A61P0005-10 [I,A]; A61P0005-18 [I,A]; A61P0005-48 [I,A];  
 A61P0007-00 [I,C]; A61P0007-02 [I,A]

ECLA: A61K0009-00M18D; A61K0009-00M20B6; A61K0009-127

BASIC ABSTRACT:

WO 2000037053 A1 UPAB: 20050830

NOVELTY - New aerosol formulations for delivery of pharmaceutical agents, contain the agent, water, an alkali metal alkyl sulfate, a membrane-mimetic amphiphile, a phospholipid, a phenol and a propellant.

DETAILED DESCRIPTION - A novel aerosol pharmaceutical formulation with multilamellar vesicles comprises:

- (a) a pharmaceutical agent;
- (b) water;
- (c) an alkali metal 8-22C alkyl sulfate in a concentration of 1-10 %, by weight;

(d) at least one membrane-mimetic amphiphile, which is lauramidopropyl betain, lauramide monoisopropanolamide, sodium cocoamphopropionate, bishydroxypropyl dihydroxypropyl stearammonium chloride, polyoxyethylene dihydroxypropyl stearammonium chloride, dioctadecyltrimethylammonium chloride, sulfosuccinates, stearamide DEA, sodium tauro dihydro fusidate, fusidic acid, alkali metal isostearyl lactylates, alkaline earth metal isostearyl lactylates, panthenyl triacetate, cocamidopropyl phosphatidyl PG-diammonium chloride, strearamidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidylcholine, polysiloxy pyrrolidone linoleyl phospholipid, octylphenoxy polyethoxyethanol or combinations;

(e) at least one phospholipid (I), selected from phospholipid GLA (glycolic, lactic acid), phosphatidyl serine, phosphatidylethanolamine, inositolphosphatides, dioleoylphosphatidylethanolamine, polysiloxy pyrrolidone linoleyl phospholipid sphingomyelin, ceramides, cephalin, triolein, saturated lecithin or unsaturated lecithin, lyssolecithin, or combinations;

(f) a phenol selected from phenol and methyl phenol in a concentration of 1-10 %, by weight; and

(g) a propellant selected from 1-2C dialkyl ether, butanes, fluorocarbon propellant, H-containing fluorocarbon propellant, chlorofluorocarbon propellant, H-containing chlorofluorocarbon propellant, or mixtures.

The amount of each membrane-mimetic amphiphile and phospholipid is present in a concentration of 1-10 %, by weight, and the total concentration of membrane-mimetic amphiphiles and phospholipids is at most 50 %, by weight.

INDEPENDENT CLAIMS are also included for the following:

- (1) making a pharmaceutical composition comprising:
- (a) mixing in a high shear mixer a proteinic pharmaceutical agent, water, an alkali lauryl sulfate in a concentration of 1-10 %, by weight, at least one membrane-mimetic amphiphile and at least one (I), the amphiphile is selected from hyaluronic acid and its salts lauramidopropyl betain, lauramide monoisopropanolamide, sodium cocoamphopropionate, bishydroxypropyl dihydroxypropyl stearammonium chloride, dioctadecyltrimethylammonium chloride, sulfosuccinates, stearamide DEA (diethylaniline), gamma-linoleic acid, borage oil, evening primrose oil, monolein, sodium tauro dihydro fusidate, fusidic acid, alkali metal isostearyl lactylates, alkaline earth metal isostearyl lactylates, panthenyl triacetate, cocamidopropyl phosphatidyl PG-diammonium chloride, strearamidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidyl PG-diammonium chloride, borage amidopropyl phosphatidylcholine, polysiloxy pyrrolidone linoleyl phospholipid, trihydroxy-oxo-cholanyl glycine and alkali metal salts, and octylphenoxy polyethoxyethanol,

polydecanol X-lauryl ether and polydecanol X-oleyl ether, where X is 9-20, the amount of each membrane mimetic amphiphile and phospholipid is present in a concentration of 1-10 %, by weight, and the total concentration of membrane mimetic amphiphiles and phospholipids is at most 50 %, by weight, the mixing being continued until the composition is in multimellar vesicle form;

(b) adding a phenol selected from phenol, methyl phenol and mixtures; and

(c) dispensing the resulting formulation into an aerosol container and charging the container with a propellant;

(2) a metered dose aerosol dispenser containing the novel aerosol pharmaceutical formulation with multilamellar vesicles.

USE - The compositions can be used for the delivery of large-molecule pharmaceuticals such as peptidic drugs, vaccines and hormones by the oral and nasal membranes, or by pulmonary access (claimed).

ADVANTAGE - The compositions enhance the penetration of drugs through the pores and facilitate the absorption of the drugs to reach therapeutic levels in the plasma. The multilamellar liposomes are very stable and are smaller than the pores of the gastrointestinal tract. MANUAL CODE: CPI: A12-V01; B01-D02; B02-C02; B03-A; B04-A07A;

B04-B01B; B04-B03C; B04-C01C; B04-C02E; B04-C02F;  
 B04-E01; B04-F01; B04-G01; B04-H05; B04-J02; B04-J03A;  
 B04-J04A; B04-J05; B04-N02; B04-N04; B04-N06; B05-A01B;  
 B05-B01P; B10-E02; B10-E04C; B10-H01; B10-H02B; B10-J02;  
 B11-C03; B12-M01A; B12-M01B; D05-H07

#### TECH

ORGANIC CHEMISTRY - Preferred Formulation: The 8-22C metal alkyl sulfate is sodium lauryl sulfate. The propellant may be e.g. H-containing chlorofluorocarbons, H-containing fluorocarbons, dimethyl ether and diethyl ether. The amphiphile is hyaluronic acid, or salt or mixtures of it, in a concentration of 5 %, by weight. The formulation contains sodium lauryl sulfate, stearamidopropyl phosphatidyl PG-diammonium chloride and ceramide, or borage amidopropyl phosphatidyl PG-diammonium chloride and lecithin.

Preferred Method: The method of mixing is a high turbulence or high shear method of mixing. (I) is injected at high velocity through at least one nozzle into an aqueous phase of the membrane-mimetic amphiphile, alternatively the amphiphile is injected, in liquid form, at high velocity through at least one nozzle into an aqueous phase of (I), or (I) and the amphiphile are injected through nozzles at high velocity, into a mixing chamber. The alkali metal lauryl sulfate is present with either (I) or the amphiphile. The nozzles have 0.5-1.0 mm diameters, and the liquid velocity is 0-15 m/s. The ratio of the amphiphile: (I) is 5-20:1.

PHARMACEUTICALS - Preferred Agent: The pharmaceutical agent may be e.g. insulin, heparin, low molecular weight heparin, hirugen, hirulox, hirudin, interferons, interleukins, cytokines, mono and polyclonal antibodies, chemotherapeutic agents, vaccines, glycoproteins, bacterial toxoids, hormones, calcitonins, insulin-like growth factors (IGF), glucagon-like peptides (GLP-1 or GLP-2), large molecule antibiotics, protein based thrombolytic compounds, platelet inhibitors, DNA, RNA, gene therapeutics, antisense oligonucleotides, opioids, narcotics, analgesics, non-steroidal antiinflammatory drugs, steroids, retinoids, anesthetics, hypnotics or pain killers.

ABEX ADMINISTRATION - The formulation is sprayed into a buccal cavity of a human, without inhalation (claimed).

EXAMPLE - None given.

AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR

SDCN RA00C8

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 53 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 CROSS REFERENCE: 2001-638992; 2002-147516; 2004-203728; 2004-257146  
 DOC. NO. CPI: C2000-140080 [40]  
 TITLE: New aerosol formulations for the delivery of agents such  
 as peptidic drugs, vaccines and hormones,  
 containing at least 3 micelle forming compounds, to  
 facilitate absorption  
 DERWENT CLASS: A96; B04; B05; B07; D16; P34  
 INVENTOR: MODI P  
 PATENT ASSIGNEE: (GENE-N) GENEREX PHARM INC; (MODI-I) MODI P  
 COUNTRY COUNT: 89

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000037051	A1	20000629	(200040)*	EN	45[0]		<--
AU 2000018518	A	20000712	(200048)	EN			<--
EP 1140019	A1	20011010	(200167)	EN			<--
US 6312665	B1	20011106	(200170)	EN			<--
US 6375975	B1	20020423	(200232)	EN			<--
US 6436367	B1	20020820	(200257)	EN			<--
US 6451286	B1	20020917	(200264)	EN			<--
NZ 512188	A	20021025	(200274)	EN			<--
JP 2002532536	W	20021002	(200279)	JA	54		<--
US 20030035831	A1	20030220	(200316)	EN			<--
AU 760445	B	20030515	(200337)	EN			<--
EP 1140019	B1	20030625	(200349)	EN			<--
US 20030157029	A1	20030821	(200356)	EN			<--
DE 69909127	E	20030731	(200357)	DE			<--
EP 1338272	A1	20030827	(200357)	EN			<--
MX 2001006380	A1	20020501	(200368)	ES			<--
ES 2203227	T3	20040401	(200425)	ES			
MX 231873	B	20051107	(200634)	ES			
US 7087215	B2	20060808	(200652)	EN			
JP 3818851	B2	20060906	(200659)	JA	20		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000037051	A1	WO 1999-CA1231	19991216
US 6312665	B1	US 1998-113239P	19981221
US 6375975	B1	US 1998-113239P	19981221
US 6436367	B1	US 1998-113239P	19981221
US 6451286	B1	US 1998-113239P	19981221
US 20030035831	A1	US 1998-113239P	19981221
US 20030157029	A1	US 1998-113239P	19981221
US 7087215	B2	US 1998-113239P	19981221
US 6312665	B1	US 1999-251464	19990217
US 6375975	B1	US 1999-251464	19990217
US 6436367	B1	US 1999-251464	19990217
US 6451286	B1	US 1999-251464	19990217
US 20030035831	A1	US 1999-251464	19990217
US 20030157029	A1	US 1999-251464	19990217
US 7087215	B2	US 1999-251464	19990217
US 6312665	B1	US 1999-386284	19990831
US 6375975	B1	US 1999-386284	19990831

US 6451286 B1 CIP of	US 1999-386284 19990831
US 20030035831 A1 CIP of	US 1999-386284 19990831
US 20030157029 A1 CIP of	US 1999-386284 19990831
US 7087215 B2 CIP of	DE 1999-609127 19991216
DE 69909127 E	EP 1999-962009 19991216
EP 1140019 A1	EP 1999-962009 19991216
EP 1140019 B1	EP 1999-962009 19991216
DE 69909127 E	EP 1999-962009 19991216
EP 13382/2 A1 Div Ex	EP 1999-962009 19991216
ES 2203227 T3	EP 1999-962009 19991216
NZ 512188 A	NZ 1999-512188 19991216
EP 1140019 A1	WO 1999-CA1231 19991216
NZ 512188 A	WO 1999-CA1231 19991216
JP 2002532536 W	WO 1999-CA1231 19991216
EP 1140019 B1	WO 1999-CA1231 19991216
DE 69909127 E	WO 1999-CA1231 19991216
MX 2001006380 A1	WO 1999-CA1231 19991216
MX 231873 B	WO 1999-CA1231 19991216
AU 2000018518 A	AU 2000-18518 19991216
AU 760445 B	AU 2000-18518 19991216
JP 2002532536 W	JP 2000-589162 19991216
US 6375975 B1	US 2000-519285 20000306
US 6451286 B1 CIP of	US 2000-519285 20000306
US 20030035831 A1 CIP of	US 2000-519285 20000306
US 20030157029 A1 CIP of	US 2000-519285 20000306
US 7087215 B2 CIP of	US 2000-519285 20000306
US 6451286 B1	US 2000-574504 20000519
US 20030035831 A1 CIP of	US 2000-574504 20000519
US 20030157029 A1 CIP of	US 2000-574504 20000519
US 7087215 B2 CIP of	US 2000-574504 20000519
MX 2001006380 A1	MX 2001-6380 20010621
MX 231873 B	MX 2001-6380 20010621
US 20030157029 A1	US 2002-222240 20020816
US 7087215 B2	US 2002-222240 20020816
US 20030035831 A1	US 2002-222699 20020816
EP 1140019 B1 Related to	EP 2003-2417 19991216
EP 13382/2 A1	EP 2003-2417 19991216
JP 3818851 B2	WO 1999-CA1231 19991216
JP 3818851 B2	JP 2000-589162 19991216

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 760445	B	Previous Publ
DE 69909127	E	Based on
EP 13382/2	A1	Div ex
ES 2203227	T3	Based on
US 20030035831	A1	CIP of
US 20030157029	A1	CIP of
US 7087215	B2	CIP of
US 20030035831	A1	CIP of
US 20030157029	A1	CIP of
US 7087215	B2	CIP of
US 20030035831	A1	CIP of
US 20030157029	A1	CIP of
US 7087215	B2	CIP of
US 20030035831	A1	CIP of
US 20030157029	A1	CIP of
US 7087215	B2	CIP of

AU 2000018518	A	Based on	WO 2000037051	A
EP 1140019	A1	Based on	WO 2000037051	A
NZ 512188	A	Based on	WO 2000037051	A
JP 2002532536	W	Based on	WO 2000037051	A
AU 760445	B	Based on	WO 2000037051	A
EP 1140019	B1	Based on	WO 2000037051	A
DE 69909127	E	Based on	WO 2000037051	A
MX 2001006380	A1	Based on	WO 2000037051	A
MX 231873	B	Based on	WO 2000037051	A
JP 3818851	B2	Previous Publ	JP 2002532536	W
JP 3818851	B2	Based on	WO 2000037051	A

PRIORITY APPLN. INFO: US 1999-386284 19990831  
 US 1999-113239P 19981221  
 US 1999-251464 19990217  
 US 2000-519285 20000306  
 US 2000-574504 20000519  
 US 2002-222240 20020816  
 US 2002-222699 20020816

## INT. PATENT CLASSIF.:

MAIN: A61K038-00; A61K009-107; A61K009-12  
 IPC ORIGINAL: A61K0031-56 [I,A]; A61K0031-56 [I,C]; A61K0031-7105 [I,A];  
 ; A61K0031-7105 [I,C]; A61K0031-711 [I,A]; A61K0031-711  
 [I,C]; A61K0031-726 [I,C]; A61K0031-727 [I,A];  
 A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0038-21 [I,A];  
 A61K0038-21 [I,C]; A61K0038-28 [I,A]; A61K0038-28 [I,C];  
A61K0039-395 [I,A]; A61K0039-395 [I,C];  
 A61K0045-00 [I,A]; A61K0045-00 [I,C]; A61K0047-06 [I,A];  
 A61K0047-06 [I,C]; A61K0047-08 [I,A]; A61K0047-08 [I,C];  
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 A61K0047-16 [I,A]; A61K0047-16 [I,C]; A61K0047-20 [I,A];  
 A61K0047-20 [I,C]; A61K0047-24 [I,A]; A61K0047-24 [I,C];  
 A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36 [I,A];  
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 A61K0048-00 [I,A]; A61K0048-00 [I,C]; A61K0009-107 [I,A];  
 A61K0009-107 [I,C]; A61K0009-12 [I,A]; A61K0009-12 [I,C];  
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 ; A61P0003-10 [I,A]; A61P0031-00 [I,A]; A61P0031-00 [I,C];  
 ; A61P0031-12 [I,A]; A61P0031-16 [I,A]; A61P0031-18 [I,A];  
 ; A61P0007-00 [I,C]; A61P0007-02 [I,A]

IPC RECLASSIF.: A61K0031-4468 [I,A]; A61K0031-4468 [I,C]; A61K0031-485  
 [I,A]; A61K0031-485 [I,C]; A61K0031-56 [I,A]; A61K0031-56  
 [I,C]; A61K0031-7105 [I,A]; A61K0031-7105 [I,C];  
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 [I,A]; A61K0038-28 [I,A]; A61K0038-28 [I,C]; A61K0038-28  
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A61K0039-395 [I,C]; A61K0045-00 [I,A];  
 A61K0045-00 [I,C]; A61K0045-00 [I,C]; A61K0045-06 [I,A];  
 A61K0047-06 [I,A]; A61K0047-06 [I,C]; A61K0047-08 [I,A];  
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 A61K0047-12 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C];  
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A61K0048-00 [I,C]; A61K0009-00 [I,A]; A61K0009-00 [I,C];  
 A61K0009-107 [I,A]; A61K0009-107 [I,C]; A61K0009-52 [I,C];  
 ; A61K0009-66 [I,A]; A61K0009-72 [I,A]; A61K0009-72 [I,C];  
 ; A61P0003-00 [I,C]; A61P0003-10 [I,A]; A61P0031-00 [I,A];  
 ; A61P0031-00 [I,C]; A61P0031-12 [I,A]; A61P0031-16 [I,A];  
 ; A61P0031-18 [I,A]; A61P0007-00 [I,C]; A61P0007-02 [I,A]

ECLA: A61K0009-00M18D; A61K0009-00M20B6; A61K0009-00M5;  
 A61K0009-107D; A61K0031-4468; A61K0031-485;

ICO: K61K0047:10; K61K0047:20

USCLASS NCLM:

NCLS:

424/045.000  
 424/043.000; 424/046.000; 424/085.100; 424/085.200;  
 424/085.400; 424/130.100; 424/184.100; 424/278.100;  
 424/400.000; 424/450.000; 424/455.000; 424/464.000;  
 424/725.000; 424/758.000; 424/764.000; 514/002.000;  
 514003000; 514004000; 514008000; 514044000; 514169000;  
 514282000; 514731000; 514772000; 514773000; 514783000;  
 514784000; 514785000; 514808000; 514822000; 514937000;  
 514946000; 514950000; 514951000; 514957000; 514958000;  
 514970000; 514974000; 514975000

#### BASIC ABSTRACT:

WO 2000037051 A1 UPAB: 20060116

**NOVELTY** - New aerosol formulations for delivery of proteinic pharmaceuticals, contain the agent, water, an alkali metal alkyl sulfate, at least 3 micelles forming compounds, a phenolic compound and a propellant.

**DETAILED DESCRIPTION** - A mixed micellar aerosol pharmaceutical formulation and a propellant, comprises:

- (a) a proteinic pharmaceutical agent in micellar form;
- (b) water;
- (c) an alkali metal 8-22C alkyl sulfate in a concentration of 1-20 %, by weight;

- (d) at least 3 micelle forming compounds selected from lecithin, hyaluronic acid and salts, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linoleic acid, linolenic acid, monoolein, monooleates, monolaurates, borage oil, evening primrose oil, menthol, trihydroxy oxo cholanly glycine and salts, glycerin, polyglycerin, lysine, polylysine, triolein, polyoxyethylene ethers and analogs, polydocalanol alkyl ethers and analogs, chenodeoxycholate, deoxycholate and mixtures, each micelle forming compound is present in a concentration of 1-20 %, by weight, and the total concentration of micelle forming compound are at most 50 %, by weight;

- (e) a phenolic compound selected from phenol and methyl phenol in a concentration of 1-10 %, by weight; and

- (f) a propellant selected from 1-2C dialkyl ether, butanes, fluorocarbon propellant, H-containing fluorocarbon propellant, chlorofluorocarbon propellant, H-containing chlorofluorocarbon propellant, and mixtures.

An INDEPENDENT CLAIM is also included for a process for making a pharmaceutical composition suitable for delivery through transdermal membranes comprising:

- (a) mixing a proteinic pharmaceutical agent composition in an aqueous medium with an alkali metal 8-22C alkyl sulfate and at least one micelle forming compound selected from lecithin, hyaluronic acid and salts, glycolic acid, lactic acid, chamomile extract, cucumber extract, oleic acid, linoleic acid, linolenic acid, monoolein, monooleates, monolaurates, borage oil, evening primrose oil, menthol, trihydroxy oxo cholanly glycine and salts, glycerin, polyglycerin, lysine, polylysine, triolein, polyoxyethylene ethers and analogs, polydocalanol alkyl ethers and analogs, chenodeoxycholate, deoxycholate and mixtures, to form a micellar proteinic pharmaceutical agent composition, and a phenolic compound selected from phenol, m-cresol and mixtures; and

(b) placing the formulation into an aerosol dispenser and charging the dispenser with a propellant, where the composition has at least 3 micelle forming compounds and each micelle forming compound is present in a concentration of 1-20 %, by weight, and the total concentration of alkali metal alkyl sulfate and micelle forming compounds is at most 50 %, by weight.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

USE - The compositions can be used for the delivery of large-molecule pharmaceutical, e.g. peptidic drugs, vaccines and hormones by buccal or pulmonary administration (claimed).

ADVANTAGE - The compositions can enhance the penetration of drugs

through pores and facilitate absorption to reach therapeutic levels in the plasma.

MANUAL CODE: CPI: A12-V01; B04-B01C1; B04-B03C; B04-E01; B04-J01;  
B04-J03A; B05-B01P; B12-M01A; D05-H07

TECH

ORGANIC CHEMISTRY - Preferred Compounds: The alkali metal 8-22C alkyl sulfate is sodium lauryl sulfate. The lecithin may be e.g. saturated or unsaturated phosphatidylcholine, phosphatidyl serine, sphingomyelin, phosphatidylethanolamine, cephalin or lyssolecithin. The propellant may be e.g. tetrafluoroethane, tetrafluoropropane, dimethylfluoropropane, heptafluoropropane, dimethyl ether, n-butane or isobutane. The micelle forming compound is hyaluronic acid, polidocanol alkyl ethers, trihydroxy oxo cholanyl glycine, polyoxyethylene ethers, or chenodeoxycholate.

PHARMACEUTICALS - Preferred Agent: The pharmaceutical agent may be e.g. insulin, heparin, low molecular weight heparin, hirulog, hirugen, huridine, interferons, interleukins, cytokines, mono and polyclonal antibodies, immunoglobins, chemotherapeutic agents, vaccines, glycoproteins, bacterial toxoids, hormones, calcitonins, insulin like growth factors (IGF), glucagons like peptides (GLP-1), large molecule antibiotics, protein based thrombolytic compounds, platelet inhibitors, DNA, RNA, gene therapeutics, antisense oligonucleotides, opioids, narcotics, hypnotics, steroids or pain killers. The agents have a molecular weight of 1000-2000000.

ABEX ADMINISTRATION - The proteinic pharmaceutical agent is administered to the buccal cavity, without inhalation using a metered dose spray dispenser (claimed). The agents may also be administered nasally or pulmonary.

EXAMPLE - 10 ml of concentrated insulin containing 10000 units/ml was placed in a glass beaker. To this solution was added 7 mg sodium lauryl sulfate, 7 mg polyoxyethylene ether (10 lauryl), 7 mg trihydroxy oxo-cholanyl glycine and 7 mg lecithin. The components were stirred until they were completely dissolved, 7 mg phenol and 7 mg m-cresol were added to the solution and mixed thoroughly. 1 ml portions of the solution were pipetted into 10 ml capacity glass vials. The vial which had metered dose valves, were then charged with HFA 134a (RTM: 1,1,1,2-tetrafluoroethane) propellant with gas filling apparatus. The amount of propellant was adjusted to 9 ml/vial to deliver 10 units of insulin/actuation of the valve (100 micro-l shot/actuation). The formulation, in the glass vial, including the propellant, was in a single phase, i.e. homogeneous. 10 diabetic patients fasted overnight and did not have a breakfast prior to dosing. On the first day, each patient had 7 units regular fast acting insulin, administered by injection. On the second day, each patient was given 70 units insulin (7 puffs of 10 units each) into the mouth, without inhalation. Blood samples were collected and plasma glucose level were measured at intervals for 3 hours. Insulin levels were also monitored at intervals by the RIA (undefined) method for 3 hours. The results showed that the injection method and spray method were comparable.

AN.S DCR-89804

CN.P CALCITONIN

SDCN R01874

SDRN 1874

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

L147 ANSWER 54 OF 84 WPIX COPYRIGHT 2008 THE THOMSON CORP on STN  
 CROSS REFERENCE: 2000-205436; 2003-635054  
 DOC. NO. CPI: C2000-074518 [21]  
 TITLE: Pulmonary administration of active agents e.g. hormones and antibacterials, to animals by administering composition comprising active agent and carrier of acylated or sulfonated amino acid  
 DERNWENT CLASS: A96; B07; C07; D16  
 INVENTOR: CAROZZA M; FLANDERS E; GSCHNEIDNER D; LEIPOLD M; LEONE-BAY A; MILSTEIN S J; O'TOOLE D; OTOOLE D; SARUBBI D J; SMART J E  
 PATENT ASSIGNEE: (EMIS-N) EMISPHERE TECHNOLOGIES INC  
 COUNTRY COUNT: 85

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000006184	A1	20000210	(200021)*	EN	47[13]	<--
AU 9953210	A	20000221	(200029)	EN		<--
EP 1100522	A1	20010523	(200130)	EN		<--
CZ 2001000331	A3	20010815	(200157)	CS		<--
CN 1311686	A	20010905	(200201)	ZH		<--
BR 9912694	A	20020102	(200206)	PT		<--
HU 2001003318	A2	20020128	(200222)	HU		<--
AU 745290	B	20020321	(200233)	EN		<--
US 6440929	B1	20020827	(200259)	EN		<--
JP 2002521455	W	20020716	(200261)	JA	57	<--
NZ 509238	A	20030725	(200357)	EN		<--
MX 2001000925	A1	20021001	(200370)	ES		<--
ES 2242412	T3	20051101	(200577)	ES		
IL 140710	A	20061231	(200720)	EN		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006184	A1	WO 1999-US16957	19990727
US 6440929	B1 Provisional	US 1998-94267P	19980727
US 6440929	B1 Provisional	US 1998-104466P	19981016
AU 9953210	A	AU 1999-53210	19990727
AU 745290	B	AU 1999-53210	19990727
BR 9912694	A	BR 1999-12694	19990727
CN 1311686	A	CN 1999-809157	19990727
EP 1100522	A1	EP 1999-938806	19990727
ES 2242412	T3	EP 1999-938842	19990727
NZ 509238	A	NZ 1999-509238	19990727
EP 1100522	A1	WO 1999-US16957	19990727
CZ 2001000331	A3	WO 1999-US16957	19990727
BR 9912694	A	WO 1999-US16957	19990727
HU 2001003318	A2	WO 1999-US16957	19990727
US 6440929	B1	WO 1999-US16957	19990727
JP 2002521455	W	WO 1999-US16957	19990727
NZ 509238	A	WO 1999-US16957	19990727
MX 2001000925	A1	WO 1999-US16957	19990727
JP 2002521455	W	JP 2000-562038	19990727

CZ 2001000331 A3  
 HU 2001003318 A2  
 MX 2001000925 A1  
 US 6440929 B1  
 IL 140710 A

CZ	2001-331	19990727
HU	2001-3318	19990727
MX	2001-925	20010125
US	2001-744777	20010426
IL	1999-140710	19990727

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 745290	B	Previous Publ
ES 2242412	T3	Based on
AU 9953210	A	Based on
EP 1100522	A1	Based on
CZ 2001000331	A3	Based on
BR 9912694	A	Based on
HU 2001003318	A2	Based on
AU 745290	B	Based on
US 6440929	B1	Based on
JP 2002521455	W	Based on
NZ 509238	A	Based on
MX 2001000925	A1	Based on
IL 140710	A	Based on
		AU 9953210
		EP 1100771
		WO 2000006184

PRIORITY APPLN. INFO: US 1998-104466P 19981016  
US 1998-94267P 19980727  
US 2001-744777 20010426

## INT. PATENT CLASSIF.:

MAIN: A61K031-195; A61K09-72  
 SECONDARY: A61K031-725; A61K031-70; A61K031-726; A61K031-727;  
 A61K038-00; A61K038-04; A61K038-11; A61K038-21;  
 A61K038-22; A61K038-23; A61K038-24; A61K038-27;  
 A61K038-28; A61K039-395; A61K045-00;  
 A61K047-16; A61K047-20; A61K047-42; A61P003-10  
 IPC ORIGINAL: A61K0031-185 [I,C]; A61K0031-195 [I,A]; A61K0031-715  
 [I,A]; A61K0031-715 [I,C]; A61K0038-00 [I,A]; A61K0038-00  
 [I,C]  
 IPC RECLASSIF.: A61K0031-16 [I,A]; A61K0031-16 [I,C]; A61K0031-70 [I,A];  
 A61K0031-70 [I,C]; A61K0031-726 [I,A]; A61K0031-726 [I,C];  
 ; A61K0031-727 [I,A]; A61K0038-00 [I,A]; A61K0038-00  
 [I,C]; A61K0038-04 [I,A]; A61K0038-04 [I,C]; A61K0038-10  
 [I,C]; A61K0038-11 [I,A]; A61K0038-12 [N,A]; A61K0038-12  
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A61K0039-395 [I,C]; A61K0045-00 [I,A];  
 A61K0045-00 [I,C]; A61K0045-08 [I,A]; A61K0047-16 [I,A];  
 A61K0047-16 [I,C]; A61K0047-18 [I,A]; A61K0047-20 [I,A];  
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 A61K0009-00 [N,A]; A61K0009-00 [N,C]; A61K0009-08 [I,A];  
 A61K0009-08 [I,C]; A61K0009-14 [I,A]; A61K0009-14 [I,C];  
 A61K0009-20 [I,A]; A61K0009-20 [I,C]; A61K0009-48 [I,A];  
 A61K0009-48 [I,C]; A61K0009-72 [I,A]; A61K0009-72 [I,C];  
 A61P0003-00 [I,C]; A61P0003-10 [I,A]; A61P0005-00 [I,A];  
 A61P0005-00 [I,C]; C07C0235-00 [I,C]; C07C0235-64 [I,A]

ECLA:

A61K0009-00M20B; A61K0031-16; A61K0031-16+A;  
 A61K0031-727; A61K0038-17A2; A61K0038-18B; A61K0038-27;  
 A61K0038-28; A61K0038-29; A61K0038-30; A61K0047-18B;  
 C07C0235-64

ICO:

K61K0009:00Z6; K61K0038:12

## BASIC ABSTRACT:

WO 2000006184 A1 UPAB: 20060201

**NOVELTY** - Methods for administering biologically active agents to animals by administering by the pulmonary route a composition comprising (a) active agent and (b) carrier comprising an acylated amino acid, sulfonated amino acid, polyamino acid including an acylated amino acid and/or polyamino acid including a sulfonated amino acid.

**USE** - Method is used for pulmonary delivery of active agents including biologically active agent and/or chemically active agents, such as peptides, mucopolysaccharides, carbohydrates or lipids, particularly growth hormones, human growth hormones, recombinant human growth hormones, bovine growth hormones, porcine growth hormones, growth hormone-releasing hormones, IFNs, alpha-IFN, beta-IFN, gamma-IFN, IL-1, IL-2, insulin, IGF, IGF-1, heparin, unfractionated heparin, heparinoids, dermatans, chondroitins, low molecular weight heparin, very low molecular weight heparin, ultra low molecular weight heparin, calcitonin, salmon calcitonin, eel calcitonin, human calcitonin, erythropoietin, atrial natriuretic factor, antigens, monoclonal antibodies, somatostatin, protease inhibitors, adrenocorticotropin, gonadotropin-releasing hormone, oxytocin, leutinizing hormone-releasing hormone, follicle-stimulating hormone, glucocerebroside, thrombopoietin, filgrastim, prostaglandins, cyclosporin, vasopressin, sodium cromoglycate, disodium cromoglycate, vancomycin (preferred), desferrioxamine, parathyroid hormone or its fragments, antimicrobials, antifungals and/or their analogs, fragments, mimetics and Polyethylene glycol (PEG)-modified derivatives (claimed) to a target.

**ADVANTAGE** - Methods provide improved pulmonary delivery and greater bioavailability of the active agent than administration of the active agent alone, thus lesser amounts of active agent may be administered to obtain a desired result. Methods are particularly suited to delivery of active agents that are subject to environmental degradation. Following administration, the active agent is rapidly taken up into the circulation. Methods provide overall increase in the amount of active agent delivered over time, overall increase in the biological response over time and/or increased delivery or response at a particular time such as quicker delivery of active agent or quicker response. MANUAL CODE: CPI: A12-V01; B02-C01; B02-V01; B04-B01B; B04-B04C;

B04-B04L; B04-B04M; B04-C02; B04-C03C; B04-D01; B04-G21;  
 B04-H02; B04-H03; B04-H04A; B04-H05; B04-H06; B04-H07;  
 B04-H19; B04-J01; B04-J03A; B04-J04; B04-J05; B04-J07';  
 B04-J09; B04-J10; B04-L05B; B04-N04; B05-B01E; B05-B01F;  
 B05-B01G; B06-A01; B06-H; B07-H; B10-A09B; B10-A10;  
 B10-A18; B10-A22; B14-A01; B14-A04; B14-D07C; C02-C01;  
 C02-V01; C04-B01B; C04-B04C; C04-B04L; C04-B04M; C04-C02;  
 C04-C03C; C04-D01; C04-G21; C04-H02; C04-H03; C04-H04A;  
 C04-H05; C04-H06; C04-H07'; C04-H19; C04-J01; C04-J03A;  
 C04-J04; C04-J05; C04-J07'; C04-J09; C04-J10; C04-L05B;  
 C04-N04; C05-B01E; C05-B01F; C05-B01G; C06-A01; C06-H;  
 C07-H; C10-A09B; C10-A10; C10-A18; C10-A22; C14-A01;  
 C14-A04; C14-D07C; D05-H11A

## TECH

**PHARMACEUTICALS** - Preferred active agent - The active agent is a biologically active agent and/or chemically active agent, preferably at least one peptide, mucopolysaccharide, carbohydrate or lipid, especially growth hormones, human growth hormones, recombinant human growth hormones, bovine growth hormones, porcine growth hormones, growth hormone-releasing hormones, interferons (IFNs) (preferred), alpha-IFN, beta-IFN, gamma-IFN, interleukin (IL)-1, IL-2 (preferred), insulin

(preferred), insulin-like growth factor (IGF) (preferred), IGF-1 (preferred), heparin (preferred), unfractionated heparin, heparinoids, dermatans, chondroitins, low molecular weight heparin (preferred), very low molecular weight heparin, ultra-low molecular weight heparin, calcitonin (preferred), salmon calcitonin, eel calcitonin, human calcitonin, erythropoietin, atrial natriuretic factor, antigens, monoclonal antibodies, somatostatin, protease inhibitors, adrenocorticotropin, gonadotropin-releasing hormone, oxytocin (preferred), leutinizing hormone-releasing hormone, follicle-stimulating hormone, glucocerebrosidase, thrombopoietin, filgrastim, prostaglandins, cyclosporin, vasopressin (preferred), sodium cromoglycate, disodium cromoglycate, vancomycin (preferred), desferrioxamine (preferred), parathyroid hormone (preferred) or its fragments, antimicrobials, antifungals and/or their analogs, fragments, mimetics and polyethylene glycol (PEG)-modified derivatives.

ORGANIC CHEMISTRY - Preferred carrier - The carrier comprises a compound of formula (I) or (II).

R1 = 1-7C alkyl, 3-10C cycloalkyl, cycloalkenyl, aryl, thienyl, phenyl, naphthyl, pyrrolo or pyridyl (all optionally substituted by one or more of 1-7C alkyl, 2-7C alkenyl, 2-7C alkynyl, 6-10C cycloalkyl, phenyl, phenoxy, F, Cl, Br, OH, SO<sub>2</sub>, SO<sub>3</sub>H, NO<sub>2</sub>, SH, PO<sub>3</sub>H, oxazolo, isoxazolo, OR<sub>6</sub>, COOR<sub>7</sub>, N(R<sub>5</sub>)<sub>2</sub> and/or N+(R<sub>5</sub>)<sub>3</sub>X-);

Y = C(O) or SO<sub>2</sub>;

X = halo, hydroxide, sulfate, tetrafluoroborate or phosphate;

R2 = H, 1-4C alkyl, 2-4C alkenyl or (CH<sub>2</sub>)<sub>n</sub>COOH;

n = 1-10;

R3 = 1-24C alkyl, 2-24C alkenyl, 2-24C alkynyl, 3-10C cycloalkyl, 3-10C cycloalkenyl, phenyl, naphthyl, 1-10C alkylphenyl, 2-10C alkenylphenyl, 1-10C alkynaphthyl, 2-10C alkenylnaphthyl, phenyl-(1-10C) alkyl, phenyl-(2-10C) alkenyl, naphthyl-(1-10C) alkyl, naphthyl-(2-10C) alkenyl (all optionally substituted by 1-4C alkyl, 2-4C alkenyl, 1-4C alkoxy, OH, SH, halo, NH<sub>2</sub>, CO<sub>2</sub>R<sub>4</sub>, 3-10C cycloalkyl, 3-10C cycloalkenyl, heterocycle containing 3-10 ring atoms including heteroatoms chosen from one or more of O, S and/or N, aryl, (1-10C alkyl)-aryl and/or aryl-(1-10C) alkyl)

R4 = H, 1-4C alkyl or 2-4C alkenyl;

R5 = H or 1-10C alkyl;

R6 = 1-10C alkyl, alkenyl, alkynyl, aryl or cycloalkyl;

R7 = H, 1-10C alkyl, alkenyl, alkynyl, aryl or cycloalkyl;

Ar = optionally substituted phenyl or naphthyl, preferably optionally substituted 2-OH-phenyl;

R8 = N(R<sub>10</sub>)-R<sub>9</sub>-C(O);

R9 = as R3 main groups except for alkyne and cycloalkyl (where R9 is optionally interrupted by O, N and/or S; and is optionally substituted by 1-4C alkyl, 2-4C alkenyl, 1-4C alkoxy, OH, SH, CO<sub>2</sub>R<sub>11</sub>, cycloalkyl, cycloalkenyl, heterocyclic alkyl, alkaryl, heteroaryl, and/or heteroalkaryl);

R10, R11 = H, 1-4C alkyl or 2-4C alkenyl.

ABEX ADMINISTRATION - Administration is pulmonary to animals including birds such as chickens and mammals such as cows, pigs, dogs, cats, primates and humans.

SPECIFIC COMPOUNDS - 3 compounds are given as carrier compounds e.g.

(Ia).

EXAMPLE - Sprague-Dawley rats were given 100 microl solution of (1) 0.01 mg/kg insulin; (2) 0.05 mg/kg insulin; (3) 0.01 mg/kg insulin plus 16 mg/kg carrier; (4) 0.05 mg/kg insulin plus 5 mg/kg carrier or (5) 0.05 mg/kg insulin plus 16 mg/kg carrier in the airways instilled by endotracheal tube. Blood samples were withdrawn at 0, 10, 30, 60, 90, 120 and 180 minutes after administration. - The percent minimum plasma glucose concentration was (%): (1) 70.02; (2) 46.4; (3) 35.7; (4) 38.6; and (5)

14.9. - The time to attain each percent minimum plasma glucose concentration was (%): (1) 180; (2) 90; (3) 120; (4) 90; and (5) 60. - The percent reduction in plasma glucose from 0 to 3 hours was (%): (1) 10.5 +/- 1.5; (2) 36 +/- 9; (3) 47 +/- 10; (4) 46 +/- 8; and (5) 65.7 +/- 5. - The area above the curve effect from 0 to t hours was (mcU/min/ml): (1) 1892 +/- 989; (2) 6395 +/- 1609; (3) 8497 +/- 1716; (4) 8218 +/- 1430; and (5) 11834 +/- 872. - The results suggest the potential of the carrier to increase significantly the bioavailability of insulin and its effect on glucose levels.

AN.S DCR-110025

CN.P VANCOMYCIN

SDCN R04258

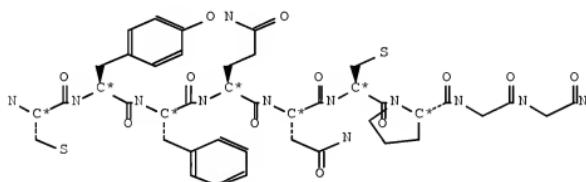
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AN.S DCR-110049

CN.P VASOPRESSIN

CNS 1-[19-Amino-13-benzyl-10-(2-carbamoyl-ethyl)-7-carbamoylmethyl-16-(4-hydroxy-benzyl)-6,9,12,15,18-pentaexo-1,2-dithia-5,8,11,14,17-pentaaza-cycloecicosane-4-carbonyl]-pyrrolidine-2-carboxylic acid  
[5-amino-1-(carbamoylmethyl-carbamoyl)-pentyl]-amide

SDCN R06995

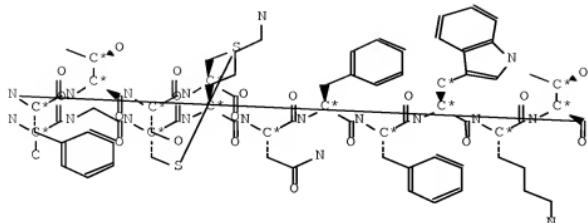


AN.S DCR-107421

CN.P SOMATOSTATIN

SDCN R02073

SDRN 2073



AN.S DCR-184587

CN.P ANTIBODIES SUBSTANCE DESCRIPTOR  
SDCN RA00CB

NO STRUCTURE DIAGRAM AVAILABLE FOR THIS ACCESSION NUMBER

=&gt; d ibib ed ab ind 55-84

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE,  
BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' - CONTINUE? (Y)/N:y

L147 ANSWER 55 OF 84      MEDLINE on STN                          DUPLICATE 4  
 ACCESSION NUMBER: 85176595      MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 3986759  
 TITLE: Immunological and biological stability of immunotoxins in vivo as studied by the clearance of disulfide-linked pokeweed antiviral protein-antibody conjugates from blood.  
 AUTHOR: Ramakrishnan S; Houston L L  
 CONTRACT NUMBER: CA 29889 (United States NCI)  
 SOURCE: Cancer research, (1985 May) Vol. 45, No. 5, pp. 2031-6.  
 Journal code: 2984705R. ISSN: 0008-5472.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198506  
 ENTRY DATE: Entered STN: 20 Mar 1990  
 Last Updated on STN: 29 Jan 1999  
 Entered Medline: 6 Jun 1985  
 ED    Entered STN: 20 Mar 1990  
 Last Updated on STN: 29 Jan 1999  
 Entered Medline: 6 Jun 1985  
 AB    Monoclonal antibodies against human T-cell antigen 3A1, human transferrin receptor, and mouse Thy 1.1 antigen were linked to pokeweed antiviral protein (PAP) by a disulfide bond. Because the ability of the immunotoxin to home on target cells in vivo and the eventual internalization of the hemitoxin polypeptide depends in part on the stability of the conjugate in circulation,

the clearance of antibody-PAP conjugates from blood was investigated. Blood samples collected from rabbits at different times after the injection of immunotoxin were analyzed for: (a) total mouse IgG; and (b) intact antibody-PAP conjugate in enzyme-linked immunosorbent assay. Further, antibody-PAP conjugate was separated from PAP by differential precipitation using polyethyleneglycol, and the PAP content of the fractions were analyzed by radioimmunoassay. Free PAP is removed very rapidly from blood, and 95% is cleared within 2 h. Our results showed that the immunotoxin did not dissociate in circulation immediately, and about 90% of the initial concentration of the conjugate was still present for more than 4 h. Analysis by enzyme-linked immunosorbent assay showed a 4- to 8-h lag period in which immunotoxin concentrations were relatively unchanged. This was followed by a steady decline, and the half-life of the conjugate in circulation then ranged between 17 and 24 h. Not only did the immunotoxins remain intact immunologically, but they also retained their biological activity as measured by the ability of blood-borne immunotoxins to efficiently block protein synthesis of target cells in vitro. These data show that the disulfide linkage of toxin to antibody is reasonably stable and that the immunotoxin retains the biological properties of both the antibody and the hemitoxin polypeptide in circulation.

## CT Animals

\*Antibodies, Monoclonal: AD, administration & dosage

Antibodies, Monoclonal: AN, analysis

Cytotoxins: AD, administration & dosage

\*Cytotoxins: ME, metabolism

Drug Stability

Humans

Isoantibodies: AN, analysis

Metabolic Clearance Rate

\*N-Glycosyl Hydrolases

Plant Proteins: AD, administration & dosage

\*Plant Proteins: ME, metabolism

Protein Biosynthesis

Rabbits

Ribosome Inactivating Proteins, Type 1

CN 0 (Antibodies, Monoclonal); 0 (Cytotoxins); 0 (Isoantibodies); 0 (Plant Proteins); 0 (Ribosome Inactivating Proteins, Type 1); 0 (anti-Thy antibody); EC 3.2.2.- (N-Glycosyl Hydrolases); EC 3.2.2.22 ( pokeweed antiviral protein)

L147 ANSWER 56 OF 84	MEDLINE on STN	DUPPLICATE 5
ACCESSION NUMBER:	84007104 MEDLINE <u>Full-text</u>	
DOCUMENT NUMBER:	PubMed ID: 6618711	
TITLE:	Antibody formation against the cytotoxic proteins abrin and ricin in humans and mice.	
AUTHOR:	Godal A; Fodstad O; Pihl A	
SOURCE:	International journal of cancer. Journal international du cancer, <u>(1983 Oct 15)</u> Vol. 32, No. 4, pp. 515-21. Journal code: 0042124. ISSN: 0020-7136.	
PUB. COUNTRY:	Denmark	
DOCUMENT TYPE:	(COMPARATIVE STUDY) Journal; Article; (JOURNAL ARTICLE)	
LANGUAGE:	English	
FILE SEGMENT:	Priority Journals	
ENTRY MONTH:	198311	
ENTRY DATE:	Entered STN: 19 Mar 1990 Last Updated on STN: 19 Mar 1990 Entered Medline: 23 Nov 1983	
ED	Entered STN: 19 Mar 1990 Last Updated on STN: 19 Mar 1990	

Entered Medline: 23 Nov 1983

AB Antibody formation may limit the therapeutic use of cancerostatic proteins. To study the significance of antibody formation against abrin and ricin, highly sensitive ELISA procedures for determination of anti-abrin and anti-ricin were developed. In mice treated weekly with therapeutic doses of ricin, antibodies appeared after 2-3 weeks and then rose rapidly, whereas after abrin treatment the antibody formation was slower. Ricin A-chain was found to be more immunogenic than either intact ricin or human serum albumin (HSA). Cyclophosphamide inhibited the antibody response to both abrin and ricin and a combination of cyclophosphamide and prednisolone totally inhibited both anti-abrin and anti-ricin formation during the 6-week observation period. In mice treated weekly with HSA, abrin treatment strongly reduced the anti-HSA formation, showing that abrin has an immunosuppressive effect which appeared to be stronger than that of cyclophosphamide. The existence of circulating antigen-antibody complexes could be demonstrated in the sera of toxin-treated mice by precipitation with *polyethyleneglycol*, whenever antibodies were detectable with ELISA. The life-span of animals given lethal ricin doses was appreciably enhanced in animals having antibody levels in excess of 10-20 ng/ml. In cancer patients treated i.v. every second week with therapeutic toxin doses, the 10-20 ng/ml levels of anti-ricin and anti-abrin were reached 6-8 weeks and 7-10 weeks after the first injection of ricin and abrin, respectively. The data indicate that the effective therapeutic use of abrin and ricin as single agents may be limited to these time frames, but that the period of effective use may be substantially prolonged if the toxins are given together with conventional cytostatic agents having immuno-suppressive activity.

CT \*Abrin: IM, immunology  
 Abrin: TU, therapeutic use  
 Animals  
 Antibodies: AN, analysis  
 \*Antibody Formation  
 Antibody Formation: DE, drug effects  
 Antigen-Antibody Complex: IP, isolation & purification  
 Cyclophosphamide: PD, pharmacology  
 Enzyme-Linked Immunosorbent Assay  
 Mice  
 Neoplasms: TH, therapy  
 \*Plant Proteins: IM, immunology  
 Prednisolone: PD, pharmacology  
 \*Ricin: IM, immunology  
 Ricin: TU, therapeutic use  
 Serum Albumin: IM, immunology  
 Time Factors  
 RN 1393-62-0 (Abrin); 50-18-0 (Cyclophosphamide); 50-24-8 (Prednisolone);  
 9009-86-3 (Ricin)  
 CN 0 (Antibodies); 0 (Antigen-Antibody Complex); 0 (Plant Proteins); 0 (Serum Albumin)

L147 ANSWER 57 OF 84      MEDLINE on STN  
 ACCESSION NUMBER: 91348861      MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 1715320  
 TITLE: Antigenic cross-reactivity and functional inhibition by antibodies to *Clostridium difficile* toxin A, *Streptococcus mutans* glucan-binding protein, and a synthetic peptide.  
 AUTHOR: Wren B W; Russell R R; Tabaqchali S  
 CORPORATE SOURCE: Department of Medical Microbiology, St. Bartholomew's Hospital Medical College, West Smithfield, London, United Kingdom.  
 SOURCE: *Infection and immunity*, (1991 Sep) Vol. 59, No. 9, pp. 3151-5.

Journal code: 0246127. ISSN: 0019-9567.

PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, NON-U.S. GOV'T)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199110  
 ENTRY DATE: Entered STN: 20 Oct 1991  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 2 Oct 1991

ED Entered STN: 20 Oct 1991  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 2 Oct 1991

AB A 10-amino-acid repeating sequence of the hemagglutinating portion of Clostridium difficile toxin A has been synthesized and used to produce antisera in rabbits. Antipeptide antibody inhibited toxin A-mediated hemagglutination and neutralized cytotoxic activity. Immunoblot analysis with the antipeptide antibody revealed cross-reactivity with native toxin, a recombinant protein containing the toxin A repeats, and a glucan-binding protein from Streptococcus mutans whose primary structure has repeating amino acid motifs similar to those of the synthetic peptide. A polyclonal antibody against the glucan-binding protein, which cross-reacted with purified toxin A, also inhibited toxin A-mediated hemagglutination and neutralized cytotoxic activity. We recently identified toxin A and the glucan-binding protein as members of a novel family of clostridial and streptococcal binding proteins based on conserved repeating amino acid motifs at the C-terminal region of the molecules. This study provides immunological and functional evidence of the predicted relationship between toxin A and the glucan-binding protein and further implicates the repeating subunits as ligand-binding domains in this family of proteins.

CT Amino Acid Sequence

Animals  
 \*Antibodies, Bacterial: IM, immunology  
 \*Bacterial Toxins: IM, immunology  
 \*Carrier Proteins: IM, immunology  
 \*Clostridium difficile: IM, immunology  
 Cross Reactions: IM, immunology  
 Cytotoxicity, Immunologic: IM, immunology  
 Electrophoresis, Polyacrylamide Gel  
 \*Enterotoxins: IM, immunology  
 Epitopes: IM, immunology  
 \*Glucans: IM, immunology  
 Hemagglutination: IM, immunology  
 Immunoblotting  
 Lectins  
 Molecular Sequence Data  
 Oligopeptides: CS, chemical synthesis  
 \*Oligopeptides: IM, immunology  
 Rabbits  
 Recombinant Proteins: IM, immunology  
 \*Streptococcus mutans: IM, immunology  
 Tumor Cells, Cultured

CN 0 (Antibodies, Bacterial); 0 (Bacterial Toxins); 0 (Carrier Proteins); 0 (Enterotoxins); 0 (Epitopes); 0 (Glucans); 0 (Lectins); 0 (Oligopeptides); 0 (Recombinant Proteins); 0 (glucan-binding proteins); 0 (tcda protein, Clostridium difficile)

L147 ANSWER 58 OF 84 MEDLINE on STN  
 ACCESSION NUMBER: 90195188 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 2107646

TITLE: Preparation of a diphtheria toxin-pullulan conjugate that elicits good IgG antibody production with poor IgE synthesis.  
 AUTHOR: Yamaya S; Yamamoto A; Komiya T; Mizuguchi J; Matuhasi T  
 CORPORATE SOURCE: Department of Applied Immunology, National Institute of Health, Shinagawa-ku, Tokyo.  
 SOURCE: Vaccine, (1990 Feb) Vol. 8, No. 1, pp. 65-9.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, NON-U.S. GOV'T)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199004  
 ENTRY DATE: Entered STN: 1 Jun 1990  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 24 Apr 1990  
 ED Entered STN: 1 Jun 1990  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 24 Apr 1990  
 AB Diphtheria toxin is detoxified through conjugation with pullulan. The toxin-pullulan conjugate is easily purified by DEAE-Sephadex chromatography. The conjugate forms a transparent 'clear line' with anti-toxin antibodies on agarose plate, which offers a good indicator of conjugate formation. The toxin-pullulan conjugate induces both IgG1 and IgG2b antibody production with diminished IgE response, while the alum-precipitated conventional toxoid causes mainly increases in IgE as well as IgG1 antibody formation. The anti-toxin HA titre (IgG antibody) induced by the toxin-pullulan conjugate parallels the neutralizing activity of the immune-sera. These results suggest that the conjugation of toxin to pullulan is a very powerful method by which to develop a vaccine that induces neutralizing antibody with diminished IgE antibody synthesis.  
 CT Animals  
Antibodies, Bacterial: BI, biosynthesis  
Chromatography, Gel  
\*Diphtheria Toxin: IM, immunology  
\*Diphtheria Toxoid: IM, immunology  
Dose-Response Relationship, Immunologic  
Enzyme-Linked Immunosorbent Assay  
\*Glucans  
Hemagglutination Tests  
Immunodiffusion  
\*Immunoglobulin E: BI, biosynthesis  
\*Immunoglobulin G: BI, biosynthesis  
Immunoglobulin M: BI, biosynthesis  
 Kinetics  
 Mice  
 Mice, Inbred C57BL  
 Neutralization Tests  
 Rats  
 Rats, Inbred Strains  
 RN 37341-29-0 (Immunoglobulin E); 9057-02-7 (pullulan)  
 CN 0 (Antibodies, Bacterial); 0 (Diphtheria Toxin); 0 (Diphtheria Toxoid); 0 (Glucans); 0 (Immunoglobulin G); 0 (Immunoglobulin M)  
 L147 ANSWER 59 OF 84 MEDLINE on STN  
 ACCESSION NUMBER: 87140068 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 3819728  
 TITLE: Ganglioside GM1 antibodies and B-cholera toxin bind specifically to embryonic

chick dorsal root ganglion neurons but do not modulate neurite regeneration.

AUTHOR: Doherty P; Walsh F S  
 SOURCE: Journal of neurochemistry, (1987 Apr) Vol. 48,  
 No. 4, pp. 1237-44.  
 Journal code: 2985190R. ISSN: 0022-3042.

PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198704  
 ENTRY DATE: Entered STN: 3 Mar 1990  
 Last Updated on STN: 3 Mar 1990  
 Entered Medline: 22 Apr 1987

ED Entered STN: 3 Mar 1990  
 Last Updated on STN: 3 Mar 1990  
 Entered Medline: 22 Apr 1987

AB Polyclonal antibodies to ganglioside GM1 have been prepared and characterised by direct and competitive enzyme-linked immunoassay. An immunoglobulin fraction was prepared from a rabbit antisera showing high specificity and antibody titre for GM1 relative to the other major brain gangliosides. The anti-GM1 immunoglobulin fraction and B-cholera toxin specifically labelled neurons in primary cultures of embryonic chick dorsal root ganglia and there was a good correlation between the relative increase in binding of anti-GM1 immunoglobulin and B-cholera toxin following neuraminidase treatment of a variety of cell types. At antibody concentrations that show saturable binding to endogenous ganglioside in the neuronal membrane, the anti-GM1 immunoglobulin fraction did not interfere with the nerve growth factor (NGF)-mediated fibre outgrowth and neuronal survival as indexed by measurement of neurofilament protein levels. Similarly, at levels in excess of those shown to stimulate thymocyte proliferation, B-cholera toxin was also without effect. These data are not consistent with GM1 in the neuronal membrane functioning as a receptor molecule for NGF and/or other differentiation factors present in the tissue culture media.

CT Animals

Antibodies: IM, immunology

Antibody Specificity

\*Axons: PH, physiology

Binding, Competitive

Cell Division: DE, drug effects

Chick Embryo

\*Cholera Toxin: ME, metabolism

Cholera Toxin: PD, pharmacology

G(M1) Ganglioside: IM, immunology

\*G(M1) Ganglioside: PH, physiology

Ganglia, Spinal: EM, embryology

\*Ganglia, Spinal: ME, metabolism

Immunoglobulins: IM, immunology

Immunoglobulins: ME, metabolism

Intermediate Filament Proteins: ME, metabolism

Nerve Growth Factors: PD, pharmacology

Nerve Regeneration

Neuraminidase: PD, pharmacology

\*Neurons: ME, metabolism

Neurons: UL, ultrastructure

RN 37758-47-7 (G(M1) Ganglioside); 9012-63-9 (Cholera Toxin)

CN 0 (Antibodies); 0 (Immunoglobulins); 0 (Intermediate Filament Proteins); 0 (Nerve Growth Factors); EC 3.2.1.18 (Neuraminidase)

ACCESSION NUMBER: 86236437 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 2424145  
 TITLE: Staphylococcal alpha-toxin: a structure-function study  
           using a monoclonal antibody.  
 AUTHOR: Harshman S; Sugg N; Gametchu B; Harrison R W  
 CONTRACT NUMBER: 1 R01 AM 32877 (United States NIADDK)  
                   5 R01 CA 19907 (United States NCI)  
 SOURCE: Toxicon : official journal of the International Society on  
           Toxicology, (1986) Vol. 24, No. 4, pp. 403-11.  
           Journal code: 1307333. ISSN: 0041-0101.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
                   (RESEARCH SUPPORT, NON-U.S. GOV'T)  
                   (RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)  
                   (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198607  
 ENTRY DATE: Entered STN: 21 Mar 1990  
                   Last Updated on STN: 3 Feb 1997  
                   Entered Medline: 2 Jul 1986

ED   Entered STN: 21 Mar 1990  
      Last Updated on STN: 3 Feb 1997  
      Entered Medline: 2 Jul 1986

AB   A monoclonal antibody (A-Tox-653.1) selected for its reactivity in a dot immunoblot assay with denatured staphylococcal alpha-toxin has been isolated and its capacity to block the hemolytic and lethal activities of alpha-toxin measured. In addition, reactivity with monomer, hexamer, 125I-monoiodinated and CNBr peptides of alpha-toxin was studied. In all cases the reactions of the monoclonal antibody were compared to those obtained with anti-alpha-toxin rabbit hyperimmune serum. We find that while both the monoclonal antibody and the rabbit antiserum react with all forms of alpha-toxin, only the rabbit antiserum blocks hemolytic or lethal activity. Further, the rabbit antiserum reacts with CNBr fragments IV, V ad VII, whereas the monoclonal antibody reacts only with the carboxy terminal CNBr peptide VII. We conclude that, in solution, the carboxy terminal segment of alpha-toxin is relatively free and reaction with the monoclonal antibody neither impedes its binding to the specific receptor on the membrane nor interferes with formation of the hexamer complex.

CT   Animals  
       Antibodies, Monoclonal  
       \*Bacterial Toxins: IM, immunology  
       Collodion  
       Cyanogen Bromide  
       Electrophoresis, Polyacrylamide Gel  
       Enzyme-Linked Immunosorbent Assay  
       Epitopes: IM, immunology  
       \*Hemolysin Proteins  
       Hemolysis  
       Immunodiffusion  
       Mice  
       Mice, Inbred BALB C  
       Peptide Fragments: IM, immunology  
       Rabbits

RN 506-68-3 (Cyanogen Bromide); 9004-70-0 (Collodion)  
 CN 0 (Antibodies, Monoclonal); 0 (Bacterial Toxins); 0 (Epitopes); 0  
       (Hemolysin Proteins); 0 (Peptide Fragments); 0 (staphylococcal  
       alpha-toxin)

reserved on STN  
 ACCESSION NUMBER: 2003174276 EMBASE Full-text  
 TITLE: Fluorescence polarization (FP) assays for the determination  
 of grain mycotoxins (fumonisins, DON vomitoxin and  
 aflatoxins).  
 AUTHOR: Nasir, Mohammad S. (correspondence); Jolley, Michael E.  
 CORPORATE SOURCE: Diachemix LLC, Unit H, 683 East Center Street, Grayslake,  
 IL 60030, United States. m-nasir@diachemix.com  
 SOURCE: Combinatorial Chemistry and High Throughput Screening, (May  
 2003) Vol. 6, No. 3, pp. 267-273.  
 Refs: 42  
 ISSN: 1386-2073 CODEN: CCHSFU  
 COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; General Review; (Review)  
 FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
 052 Toxicology  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 19 May 2003  
 Last Updated on STN: 19 May 2003  
 ED Entered STN: 19 May 2003  
 Last Updated on STN: 19 May 2003  
 AB Successful use of fluorescence polarization assays (FPAs) in human clinical,  
 infectious disease, and drug discovery fields has prompted us to extend its  
 use to the grain mycotoxin field. An antibody specific to a mycotoxin and a  
 mycotoxin-fluorophore conjugate are developed. Free toxin (extracted from the  
 grains with a suitable solvent) competes with the toxin-fluorophore conjugate  
 for the antibody and a change in FP relative to the quantity of free toxin  
 occurs. This change is compared to a standard curve obtained by using known  
 quantities of toxin. The use of FP and toxin-fluorophore conjugates for the  
 quantification of fumonisins, deoxynivalenol and aflatoxins is described.  
 These assays are field portable, simple to perform, rapid and require no  
 washing steps.  
 CT Medical Descriptors:  
antibody specificity  
binding competition  
conjugate  
drug design  
extraction  
\*fluorescence polarization  
\*grain  
infection  
nonhuman  
priority journal  
quantitative analysis  
quantitative assay  
review  
solvent extraction  
standard  
\*toxin analysis  
 CT Drug Descriptors:  
\*aflatoxin  
\*fumonisin  
\*mycotoxin  
solvent  
toxin antibody  
\*vomitoxin  
 RN (aflatoxin) 1402-68-2; (vomitoxin) 51481-10-8

reserved on STN

ACCESSION NUMBER: 1999005453 EMBASE Full-text

TITLE: Antitumor effect of diphtheria toxin A-chain gene-containing cationic liposomes conjugated with monoclonal antibody directed to tumor-associated antigen of bovine leukemia cells.

AUTHOR: Tana; Yasuda, Tatsushi

CORPORATE SOURCE: Department of Cell Chemistry, Institute of Cellular and Molecular Biology, Okayama University Medical School, Shikata-cho, Okayama 700-8558.

AUTHOR: Watarai, Shinobu (correspondence); Kodama, Hiroshi

CORPORATE SOURCE: Laboratory of Veterinary Immunology, College of Agriculture, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka 599-8531.

AUTHOR: Onuma, Misao

CORPORATE SOURCE: Graduate School of Veterinary Medicine, Hokkaido University, Sapporo 060-0818.

AUTHOR: Aida, Yoko

CORPORATE SOURCE: Tsukuba Life Science Center, Institute of Physical and Chemical Research (RIKEN), 3-1-1 Koyadai, Tsukuba, Ibaraki 305-0074.

AUTHOR: Kakidani, Hitoshi

CORPORATE SOURCE: Tokyo Research Laboratory, TOSOH Corporation, 2743-1 Hayakawa, Ayase, Kanagawa 252-1123.

AUTHOR: Watarai, Shinobu (correspondence)

CORPORATE SOURCE: Department of Veterinary Science, College of Agriculture, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka 599-8531, Japan.

SOURCE: Japanese Journal of Cancer Research, (1998) Vol. 89, No. 11, pp. 1202-1211.

Refs: 30

ISSN: 0910-5050 CODEN: JJCREP

COUNTRY: Japan

DOCUMENT TYPE: Journal; Article

FILE SEGMENT:

- 016 Cancer
- 022 Human Genetics
- 025 Hematology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 15 Jan 1999  
Last Updated on STN: 15 Jan 1999

ED Entered STN: 15 Jan 1999  
Last Updated on STN: 15 Jan 1999

AB Monoclonal antibody c143 against tumor-associated antigen (TAA) expressed on bovine leukemia cells was conjugated to cationic liposomes carrying a plasmid pLTR-DT which contained a gene for diphtheria toxin A-chain (DT-A) under the control of the long terminal repeat (LTR) of bovine leukemia virus (BLV) in the multicloning site of pUC-18. The specificity and antitumor effects of the conjugates were examined in vitro and in vivo using TAA-positive bovine B-cell lymphoma line as the target tumor. In vitro studies with the TAA-positive cell line indicated that luciferase gene-containing cationic liposomes associated with the c143 anti-TAA monoclonal antibody caused about 2-fold increase in luciferase activity compared with cationic liposomes having no antibody, and also that the c143-conjugated cationic liposomes containing pLTR-DT exerted selective growth-inhibitory effects on the TAA-positive B-cell line. Three injections of pLTR-DT-containing cationic liposomes coupled with c143 into tumor-bearing nude mice resulted in significant inhibition of the tumor growth. The antitumor potency of the c143-conjugated cationic liposomes containing pLTR-DT was far greater than that of normal mouse IgG-coupled cationic liposomes containing pLTR-DT as assessed in terms of tumor size.

These results suggest that cationic liposomes bearing c143 are an efficient transfection reagent for BLV-infected B-cell lymphoma cells, and that the delivery of the pLTR-DT gene into BLV-infected B-cells by the use of such liposomes may become a useful technique for gene therapy of bovine leukosis.

CT Medical Descriptors:

animal cell  
 antineoplastic activity  
 article  
 b cell lymphoma  
 bovine leukemia virus  
conjugate  
 controlled study  
 DNA transfection  
 enzyme activity  
 gene  
 \*gene targeting  
 \*gene therapy  
 \*leukemia cell  
 long terminal repeat  
 nonhuman  
 nude mouse  
 plasmid  
 priority journal  
 tumor volume

CT Drug Descriptors:

\*cancer antibody  
\*diphtheria toxin  
 \*liposome  
 luciferase  
monoclonal antibody  
 tumor antigen: EC, endogenous compound

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ACCESSION NUMBER: 1995212093 EMBASE Full-text  
 TITLE: Selective killing of T cells by immunotoxins directed at distinct V( $\beta$ ) epitopes of the T cell receptor.  
 AUTHOR: Rigaut, K.D. (correspondence); Scharff, J.E.; Neville Jr., D.M.

CORPORATE SOURCE: National Institute of Mental Health, Laboratory of Molecular Biology, 9000 Rockville Pike, Bethesda, MD 20892, United States.

SOURCE: European Journal of Immunology, (1995) Vol. 25, No. 7, pp. 2077-2082.

ISSN: 0014-2980 CODEN: EJIMAF

COUNTRY: Germany

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 026 Immunology, Serology and Transplantation

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 3 Aug 1995  
 Last Updated on STN: 3 Aug 1995

ED Entered STN: 3 Aug 1995

Last Updated on STN: 3 Aug 1995

AB The potency and specificity of anti-T cell receptor (TcR)-directed immunotoxins were studied in two T cell leukemia lines, HPB-ALL and Jurkat, and in primary T cells. Immunoconjugates were synthesized using anti-CD3( $\epsilon$ ) or distinct anti-V( $\beta$ ), antibodies cross-linked to CRM9, a binding site-mutant of diphtheria toxin. All TcR-expressing cells display the CD3 complex on the

plasma membrane. HPB-ALL cells express the V(β)8 gene product in the β subunit of the TcR, while Jurkat cells express V(β)8. V(β) expression in primary T cells isolated from buffy coats is heterogeneous. Primary T cell populations expressing specific V(β) epitopes in the TcR were generated by plating CD3(+) T cells on V(β)-specific antibody-coated flasks or by positive immunomagnetic selection. Immunotoxins directed against the invariant CD3ε epitope target and kill all T cells. Immunoconjugates targeted at distinct anti-V(β) epitopes are specific for cells that express the corresponding gene product in the TcR. The results demonstrate the ability of anti-TcR-based immunotoxins selectively to kill T cells with defined V(β) epitopes. These reagents may be clinically useful in disorders mediated by autoreactive T cell populations exhibiting V(β) restriction and in the treatment of clonal TcR-expressing lymphomas.

CT Medical Descriptors:

article

\*cell killing

conjugate

human

human cell

leukemia cell line

lymphocyte membrane

normal human

priority journal

t lymphocyte

CT Drug Descriptors:

cd3 antigen: EC, endogenous compound

\*immunotoxin

\*t lymphocyte receptor beta chain

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ACCESSION NUMBER: 1995336721 EMBASE Full-text

TITLE: Recombinant immunotoxins: From basic research to cancer therapy.

AUTHOR: Brinkmann, U.; Pastan, I. (correspondence)

CORPORATE SOURCE: Laboratory of Molecular Biology, Division of Cancer Biology, National Cancer Institute, NIH, 9000 Rockville Pike, Bethesda, MD 20892, United States.

SOURCE: Methods: A Companion to Methods in Enzymology, (1995) Vol. 8, No. 2, pp. 143-156.

ISSN: 1046-2023 CODEN: MTHDE9

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 016 Cancer

026 Immunology, Serology and Transplantation

029 Clinical and Experimental Biochemistry

030 Clinical and Experimental Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 28 Nov 1995

Last Updated on STN: 28 Nov 1995

ED Entered STN: 28 Nov 1995

Last Updated on STN: 28 Nov 1995

AB Much work has been directed at the development of reagents that would combine the specificity of antibodies with potent and readily manipulated cytotoxic effector functions. In this review, we describe immunotoxins, molecules that contain an antibody-derived antigen binding region (Fv) coupled to a bacterial toxin, most commonly Diphtheria toxin or Pseudomonas exotoxin. Second-

generation immunotoxins are fully recombinant fusion proteins containing a two-chain, disulfide-stabilized, or single-chain Fv region and a modified bacterial toxin. The relative advantages of the single-chain versus two-chain approach are described, as are techniques for purification of these agents from bacterial inclusion bodies. Finally, the use of such reagents as analytical tools in protein engineering and therapeutically, in cancer therapy, is discussed.

## CT Medical Descriptors:

- antigen binding
- antineoplastic activity
- \*cancer: DT, drug therapy
- \*cancer immunotherapy
- cell inclusion
- clinical trial
- conjugate
- disulfide bond
- drug binding
- drug cytotoxicity
- drug structure
- drug synthesis
- drug targeting
- human
- leukemia: DT, drug therapy
- nonhuman
- priority journal
- review

## CT Drug Descriptors:

- carbohydrate antigen: EC, endogenous compound
- diphtheria toxin
- hybrid protein
- immunoglobulin f(ab) fragment
- \*immunotoxin: CT, clinical trial
- \*immunotoxin: AN, drug analysis
- \*immunotoxin: DT, drug therapy
- interleukin 2 receptor
- interleukin 2 receptor antibody
- pseudomonas exotoxin
- recombinant protein
- ricin
- transferrin receptor
- tumor antigen: EC, endogenous compound

RN (interleukin 2 receptor antibody) 179045-86-4; (ricin) 9009-86-3

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ACCESSION NUMBER: 1994152139 EMBASE Full-text

TITLE: KomaZyme-CD5 immunotoxin in conjunction with partial T cell depletion for prevention of graft rejection and graft-versus-host disease after bone marrow transplantation from matched unrelated donors.

AUTHOR: Kosher, M.; Hurwitz, C.A.; Coustan-Smith, E.; Williams, L.L.; Santana, V.; Ribeiro, R.C.; Brenner, M.K.; Heslop, H.E., Dr. (correspondence)

CORPORATE SOURCE: Div of Bone Marrow Transplantation, Department of Hematology-Oncology, St Jude Children's Research Hospital, 332 N Lauderdale, Memphis, TN 38103, United States.

SOURCE: Bone Marrow Transplantation, (1994) Vol. 13, No. 5, pp. 571-575.

ISSN: 0268-3369 CODEN: BMTRE9

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 025 Hematology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 2 Jun 1994  
                  Last Updated on STN: 2 Jun 1994  
 ED   Entered STN: 2 Jun 1994  
       Last Updated on STN: 2 Jun 1994  
 AB   Patients who receive bone marrow transplants from unrelated donors have a high incidence of graft-versus-host disease (GVHD). If the donor marrow is first T cell-depleted, the severity of GVHD declines but the risk of rejection rises. In an attempt to prevent both graft rejection and GVHD, we included an anti-T cell antibody-toxin conjugate (CD-5-Ricin; XomaZyme H65) in the transplant conditioning regimen. After receiving a partially T cell-depleted marrow, patients then received a second course of immunotoxin as additional GVHD prophylaxis. Eight recipients of unrelated donor marrow transplants were studied. All engrafted ( $ANC > 500 \times 10^6/l$  by day 15, range 13-20 days). One patient had grade II skin GVHD and one developed grade IV disease but the other six patients had no acute GVHD. However, there was high morbidity and mortality from virus infections associated with a sluggish return of CD4 and CD8 T cells into the normal range. Four patients died from virus disease (CMV, n = 2; EBV, n = 1; adenovirus, n = 1) and the remaining patients had frequent documented viral illnesses during the first year. We conclude that improvement in the outcome of unrelated donor marrow transplantation will require strategies which prevent rejection and GVHD coupled with attempts to accelerate immune reconstitution.  
 CT   Medical Descriptors:  
 adenovirus  
 adolescent  
 adult  
 article  
 \*bone marrow transplantation  
 child  
 clinical article  
     conjugate  
 cytomegalovirus  
 epstein barr virus  
 female  
 \*graft rejection: DT, drug therapy  
 \*graft rejection: PC, prevention  
 \*graft versus host reaction: DT, drug therapy  
 \*graft versus host reaction: PC, prevention  
 HLA matching  
 human  
 human cell  
 human tissue  
 immune system  
 intravenous drug administration  
 leukemia: DT, drug therapy  
 leukemia: RT, radiotherapy  
 leukemia: SU, surgery  
 leukemia: TH, therapy  
 \*lymphocyte depletion  
 male  
 morbidity  
 mortality  
 preschool child  
 priority journal

school child  
 skin manifestation: CO, complication  
 skin manifestation: DT, drug therapy  
 t lymphocyte  
 virus infection: CO, complication  
 virus infection: DT, drug therapy  
**CT**  
 Drug Descriptors:  
 aciclovir: DO, drug dose  
 aciclovir: DT, drug therapy  
 antiinfective agent: DT, drug therapy  
 cd4 antigen: EC, endogenous compound  
 \*cd5 antigen: DT, drug therapy  
 cd8 antigen: EC, endogenous compound  
 cotrifamole: DT, drug therapy  
 cyclophosphamide: CB, drug combination  
 cyclophosphamide: DO, drug dose  
 cyclophosphamide: DT, drug therapy  
 cytarabine: CB, drug combination  
 cytarabine: DO, drug dose  
 cytarabine: DT, drug therapy  
 ganciclovir: DO, drug dose  
 ganciclovir: DT, drug therapy  
immunotoxin: AD, drug administration  
immunotoxin: CB, drug combination  
immunotoxin: DO, drug dose  
immunotoxin: DT, drug therapy  
 methylprednisolone: CB, drug combination  
 methylprednisolone: DO, drug dose  
 methylprednisolone: DT, drug therapy  
\*ricin: DT, drug therapy  
 steroid: DO, drug dose  
 steroid: DT, drug therapy  
\*xomazyme: AD, drug administration  
\*xomazyme: CB, drug combination  
\*xomazyme: DO, drug dose  
\*xomazyme: DT, drug therapy  
**RN** (aciclovir) 59277-89-3; (cotrifamole) 57197-43-0; (cyclophosphamide) 50-18-0; (cytarabine) 147-94-4, 69-74-9; (ganciclovir) 82410-32-0; (methylprednisolone) 6923-42-8, 83-43-2; (ricin) 9009-86-3  
**CO** xoma (United States)

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**ACCESSION NUMBER:** 1992326834 EMBASE Full-text  
**TITLE:** Targeting of specific domains of diphtheria toxin by site-directed antibodies.  
**AUTHOR:** Sesardic, D. (correspondence); Khan, V.; Corbel, M.J.  
**CORPORATE SOURCE:** Division of Bacteriology, Natl Inst Biologic Standards Control, Blanche Lane, South Mimms, Hertfordshire EN6 3QG, United Kingdom.  
**SOURCE:** Journal of General Microbiology, (1992) Vol. 138, No. 10, pp. 2197-2203.  
**ISSN:** 0022-1287 **CODEN:** JGMIAN  
**COUNTRY:** United Kingdom  
**DOCUMENT TYPE:** Journal; Article  
**FILE SEGMENT:**

026	Immunology, Serology and Transplantation
037	Drug Literature Index
004	Microbiology: Bacteriology, Mycology, Parasitology and Virology
052	Toxicology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 22 Nov 1992

Last Updated on STN: 22 Nov 1992

ED Entered STN: 22 Nov 1992

Last Updated on STN: 22 Nov 1992

AB Antibodies highly selective for two functionally distinct regions of diphtheria toxin (DTx) were prepared using synthetic peptide conjugates as immunogens. Three peptides were selected for synthesis: sequence DTx(141-157) on fragment A, which contains the putative protein elongation factor (EF-2) ADP-ribosyltransferase site; DTx(224-237) on fragment B, selected on the basis of forming a predicted surface loop; and DTx(513-526) on fragment B, forming a part of the region containing the putative receptor binding domain. All of the anti-peptide antibodies recognized the corresponding peptide, and also reacted with the toxin, specifically with the fragment containing the sequence against which they were raised, confirming the utility of this approach in generating fragment-specific antibodies. The anti-peptide antibody with the highest binding titre both to the peptide and to the native toxin was the one prepared against the sequence with the highest surface and loop likelihood indices of the three peptides selected. The similarity of the reactivity profiles with peptide and native and denatured toxin is consistent with the prediction that the region selected occurs in a surface loop and that the structure of the peptide is similar to the conformation of this region in the native protein. The epitopes for two of the anti-peptide antibodies were mapped. The results indicated that even though the antisera were raised to peptides containing 14 amino acids (aa) they were directed predominately against a narrow region within the peptide, consisting of only 5-6 aa residues. The predicted location of the peptide and their epitopes was confirmed by inspection of the X-ray crystallographic structure of DTx. Antibodies to peptides were selective for the toxin, one binding to DTx some 5-60-fold better than to diphtheria toxoid, presumably reflecting variability caused by toxoid preparation at this epitope. None of the antisera produced protected against DTx challenge in the guinea pig intradermal test in vivo. Although the availability of site-specific antibodies that recognize neutralizing epitopes would be very valuable, antibodies such as those described here should prove extremely useful in the structure-function analysis of DTx.

CT Medical Descriptors:

adenosine diphosphate ribosylation

animal experiment

animal model

antibody affinity\*antibody specificityantigen binding

article

conjugate

controlled study

female

guinea pig

intracutaneous test

intradermal drug administration

nonhuman

priority journal

protein conformation

protein domain

protein structure

receptor binding\*toxin structure

X ray crystallography

CT Drug Descriptors:

\*diphtheria toxin  
elongation factor 2  
epitope  
synthetic peptide  
\*toxin antibody

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ACCESSION NUMBER: 1988145480 EMBASE Full-text  
 TITLE: Protein A vectorized toxins - II. Preparation and 'in vitro' cytotoxic effect of protein A-ricin A chain conjugate on antibody coated human tumour cells.

AUTHOR: Ghetie, M.-A.; Moraru, I.; Margineanu, M.; Ghetie, V.

CORPORATE SOURCE: Laboratory of Immunochemistry, Babes Institute, R-76201 Bucharest, Romania.

SOURCE: Molecular Immunology, (1988) Vol. 25, No. 5, pp. 473-477.

COUNTRY: ISSN: 0161-5890 CODEN: IMCHAZ United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 016 Cancer  
 025 Hematology  
 026 Immunology, Serology and Transplantation  
 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 052 Toxicology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 11 Dec 1991  
 Last Updated on STN: 11 Dec 1991

ED Entered STN: 11 Dec 1991  
 Last Updated on STN: 11 Dec 1991

AB Protein A of Staphylococcus aureus was covalently bound to reduced ricin A chain toxin by N-succinimidyl 3-(2-pyridylidithio)propionate. The conjugate consisting mainly of one molecule of protein A bound to two molecules of A chains ( $M_r$  107,000) was purified by tandem affinity chromatography on ConA-Sepharose 4B and IgG-Sepharose 4B. The purified protein A-A chain conjugate was able to bind and kill human lymphoma cells coated either with monoclonal mouse IgG2a anti-kappa antibody or with polyclonal rabbit anti-kappa antibody. The cytotoxic activity of protein A-A chain conjugate in conjunction with either mouse or rabbit anti-kappa antibodies was 10 times higher than that of rabbit IgG anti-mouse IgG coupled with A chain on Daudi cells coated with mouse anti-kappa antibody and 100 times higher than that of rabbit anti-kappa antibody coupled with A chain on non-coated Daudi cells. The cytotoxic effect of protein A-A chain conjugate on antibody-coated Daudi cells ( $9 \times 10^{(-12)}$  M) was comparable with that of ricin toxin on non-coated Daudi cells ( $2 \times 10^{(-12)}$  M). The results recommend the use of protein A-ricin A chain toxin conjugate as a unique specific toxin for the 'in vitro' killing of antibody-coated target cells.

CT Medical Descriptors:  
 \*cancer cell destruction  
 cell culture  
conjugate  
cytotoxicity  
 daudi cell  
 human

CT Drug Descriptors:  
monoclonal antibody  
protein a  
ricin a: DV, drug development

\*ricia a: PD, pharmacology

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STN DUPLICATE 2

ACCESSION NUMBER: 1989:94249 BIOSIS Full-text  
DOCUMENT NUMBER: PREV19897048385; BA87:48385  
TITLE: HUMAN ANTIBODY RESPONSES TO TWO CONJUGATE  
VACCINES OF HAEMOPHILUS INFLUENZAE TYPE B  
SACCHARIDES AND DIPHTHERIA TOXIN.  
AUTHOR(S): SEPPLA I [Reprint author]; SARVAS H; MAKELA O; MATTILA P;  
ESKOLA J; KAYHTY H  
CORPORATE SOURCE: DEP BACTERIOLOGY AND IMMUNOLOGY, UNIV HELSINKI,  
HAARTMANINKATU 3, 00290 HELSINKI, FINLAND  
SOURCE: Scandinavian Journal of Immunology, (1988) Vol.  
28, No. 4, pp. 471-480.  
CODEN: SJIMAX. ISSN: 0300-9475.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 6 Feb 1989  
Last Updated on STN: 6 Feb 1989

ED Entered STN: 6 Feb 1989

Last Updated on STN: 6 Feb 1989

AB Antigenicity of two Haemophilus influenzae type b (Hib) conjugate vaccines was studied by immunizing adults and 2-year-old children. Both vaccines induced strong anti-Hib responses and strong antibody responses to diphtheria toxin (DT), the protein part of the conjugate. The adults' responses were stronger than the children's. A conjugate of Hib oligosaccharide and mutant diphtheria toxin (HbOC) emerged as slightly superior to a conjugate of Hib polysaccharide and diphtheria toxoid (PRP-D). HbOC induced somewhat higher total anti-Hib responses and significantly higher IgG1 anti-Hib responses than PRP-D. IgG1 and IgG2 were the main IgG subclasses of the anti-Hib antibodies, whereas IgG and IgG4 were the main subclases of the anti-DT antibodies. Within this main rule, the ratio IgG1/IgG2 of anti-Hib antibodies varied between individuals. The average ratio was higher than five in children but approximately one in adults. It was lower in adult recipients of the polysaccharide conjugate (0.69) than in adult recipients of the oligosaccharide conjugate (1.55). A large interindividual variation was observed in concentrations of IgG2 of Hib specificity, perhaps reflecting a small number of IgG2-committed B-cell clones participating in the response.

CC Cytology - Human 02508

Biochemistry studies - Proteins, peptides and amino acids 10064

Biochemistry studies - Carbohydrates 10068

Metabolism - Carbohydrates 13004

Metabolism - Proteins, peptides and amino acids 13012

Blood - Blood cell studies 15004

Blood - Lymphatic tissue and reticuloendothelial system 15008

Pharmacology - Immunological processes and allergy 22018

Immunology - Bacterial, viral and fungal 34504

Medical and clinical microbiology - Bacteriology 36002

IT Major Concepts

Blood and Lymphatics (Transport and Circulation); Immune System  
(Chemical Coordination and Homeostasis); Infection; Metabolism;  
Pharmacology

IT Miscellaneous Descriptors

B CELL IMMUNOGLOBULIN

ORGN Classifier

Bacteria 05000

Super Taxa

Microorganisms

Taxa Notes  
 Bacteria, Eubacteria, Microorganisms  
 ORGN Classifier  
 Irregular Nonsporing Gram-Positive Rods 08890  
 Super Taxa  
 Actinomycetes and Related Organisms; Eubacteria; Bacteria;  
 Microorganisms  
 Taxa Notes  
 Bacteria, Eubacteria, Microorganisms  
 ORGN Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates  
 RN 58517-16-1 (DIPHTHERIA TOXIN)

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 STN DUPLICATE 6

ACCESSION NUMBER: 1983:238121 BIOSIS Full-text  
 DOCUMENT NUMBER: PREV198375088121; BA75:88121  
 TITLE: ANTIBODY RESPONSES TO HAEMOPHILUS-INFLUENZAE TYPE B AND DIPHTHERIA TOXIN INDUCED BY CONJUGATES OF OLIGO SACCHARIDES OF THE TYPE B CAPSULE WITH THE NONTOXIC PROTEIN CRM-197.  
 AUTHOR(S): ANDERSON P [Reprint author]  
 CORPORATE SOURCE: DEP PEDIATR MICROBIOL, UNIV ROCHESTER MED CENT, ROCHESTER, NY 14642, USA  
 SOURCE: Infection and Immunity, (1993) Vol. 39, No. 1, pp. 233-238.  
 CODEN: INFIBR. ISSN: 0019-9567.  
 DOCUMENT TYPE: Article  
 FILE SEGMENT: BA  
 LANGUAGE: ENGLISH

AB Oligosaccharides were made from *H. influenzae* type b capsular polysaccharide and conjugated to CRM197 by reductive amination. Conjugates were made with a range of lengths and multiplicities of saccharide chains. All elicited a strongly enhanced anti-*H. influenzae* type b capsular polysaccharide response when injected into weanling rabbits. One series of conjugates also elicited antibodies to diphtheria toxin.

CC Biochemistry methods - Proteins, peptides and amino acids 10054  
 Biochemistry methods - Carbohydrates 10058  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Biochemistry studies - Carbohydrates 10068  
 Metabolism - Carbohydrates 13004  
 Metabolism - Proteins, peptides and amino acids 13012  
 Pharmacology - Immunological processes and allergy 22018  
 Toxicology - General and methods 22501  
 Toxicology - Antidotes and prevention 22505  
 Pediatrics - 25000  
 Physiology and biochemistry of bacteria 31000  
 Immunology - General and methods 34502  
 Immunology - Bacterial, viral and fungal 34504  
 Medical and clinical microbiology - Bacteriology 36002

IT Major Concepts  
 Immune System (Chemical Coordination and Homeostasis); Infection;  
 Pharmacology; Toxicology

IT Miscellaneous Descriptors  
 WEANLING RABBITS CHAIN LENGTH CHAIN MULTIPLICITY

ORGN Classifier

Bacteria 05000  
 Super Taxa  
 Microorganisms  
 Taxa Notes  
 Bacteria, Eubacteria, Microorganisms  
 ORGN Classifier  
 Irregular Nonsporing Gram-Positive Rods 08890  
 Super Taxa  
 Actinomycetes and Related Organisms; Eubacteria; Bacteria;  
 Microorganisms  
 Taxa Notes  
 Bacteria, Eubacteria, Microorganisms  
 ORGN Classifier  
 Leporidae 86040  
 Super Taxa  
 Lagomorpha; Mammalia; Vertebrata; Chordata; Animalia  
 Taxa Notes  
 Animals, Chordates, Lagomorphs, Mammals, Nonhuman Vertebrates, Nonhuman  
 Mammals, Vertebrates  
 RN 58517-16-1 (DIPHTHERIA TOXIN)

L147 ANSWER 70 OF 84 JAPIO (C) 2008 JPO on STN  
 ACCESSION NUMBER: 1985-067431 JAPIO Full-text  
 TITLE: MONOCLONAL ANTIBODY  
 INVENTOR: NAGAIKE KAZUHIRO; MURAMATSU MINORU; HOSOKAWA SEIKO  
 PATENT ASSIGNEE(S): MITSUBISHI CHEM IND LTD  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 60067431	A	19850417	Showa	<u>A61K039-395</u>

## APPLICATION INFORMATION

STN FORMAT:	JP 1983-176771	19830924
ORIGINAL:	JP58176771	Showa
PRIORITY APPLN. INFO.:	JP 1983-176771	19830924
SOURCE:	PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985	

ED 20020206

AB PURPOSE: To provide a monoclonal antibody recognizing the  $\alpha$ -fetoprotein existing at the surface of cell membrane, and useful for the remedy of hepatocarcinoma, especially as an antibody for missile therapy.  
 CONSTITUTION: A monoclonal antibody recognizing the  $\alpha$ -fetoprotein (AFP) existing at the surface of cell membrane. In the markers of carcinoma, AFP and fetus antigen (CEA) are well known, and AFP is produced in various hepatocarcinoma and cerulein. Since said monoclonal antibody recognizes the AFP existing at the surface of cell membrane, it is suitable for the missile therapy by bonding the antibody with a carcinostatic agent or a toxin. The antibody can be prepared by (1) immunizing e.g. BALB/C mouse with AFP originated from human placenta, (2) extracting the spleen from the immunized animal, (3) carrying out the fusion with the mouse myeloma cell of e.g. P3-U1 using polyethylene glycol by conventional method to obtain a hybridoma, and (4) separating from the supernatant liquid. The monoclonal antibody prepared by this process is effective to dye the hepatocarcinoma cerulein immunochemically, and to select the positive antibody. COPYRIGHT: (C)1985, JPO&Japio

IC ICM A61K039-395

ICS G01N033-574; G01N033-577

ICA C12N015-00; C12P021-00; C12Q001-04

L147 ANSWER 71 OF 84 BIOENG COPYRIGHT 2008 CSA on STN  
 ACCESSION NUMBER: 2004163578 BIOENG Full-text  
 DOCUMENT NUMBER: 1977846  
 TITLES: Tolerogenic conjugates of xenogeneic monoclonal antibodies with monomethoxypolyethylene glycol. I. Induction of long-lasting tolerance to xenogeneic monoclonal antibodies.  
 AUTHOR: Maiti, PK; Lang, GM; Sehon, AH  
 CORPORATE SOURCE: MRC Group Allergy Res., Dep. Immunol., Univ. Manitoba, Winnipeg, Man. R3E OW3, Canada  
 SOURCE: ADVANCES IN THE APPLICATIONS OF MONOCLONAL ANTIBODIES IN CLINICAL ONCOLOGY., 1988, pp. 17-22, International Journal of Cancer [INT. J. CANCER.], no. 3 Suppl. Conference: 5. International Meeting at the Wolfson Institute, London (UK), 25-27 May 1988  
 ISSN: 0020-7136  
 DOCUMENT TYPE: Book; Conference  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 OTHER SOURCE: Biotechnology Research Abstracts (through 1992); Immunology Abstracts  
 UP 20040602  
 AB The therapeutic effectiveness of xenogeneic monoclonal antibodies (MAbs) (xIg) or their conjugates with toxins (xIg-Tx) is undermined because of their inherent immunogenicity. This complication may be overcome by converting the antigenic xIg to tolerogenic derivatives by coupling an appropriate number of monomethoxypolyethylene glycol (mPEG) chains onto an xIg molecule. In this study, the test system consisted of inbred mice and human (myeloma) monoclonal immunoglobulins (HIgG) which were used in lieu of xIg; the immunizing antigen was heat-aggregated HIgG. The results of a variety of experimental protocols demonstrate that a long-lasting suppression (>95%) of anti-HIgG antibodies for periods in excess of 300 days was achieved by administration of tolerogenic HIgG(mPEG) sub(n) conjugates in spite of multiple injections of the immunizing antigen.  
 AN 2004163578 BIOENG Full-text  
 CC 30506 Therapeutic  
 CT monomethoxypolyethylene glycol; antibody response; immunological tolerance  
 UT monoclonal antibodies; conjugate; immunosuppression; induction; xenogeneic

L147 ANSWER 72 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 ACCESSION NUMBER: 2005-09828 BIOTECHDS Full-text  
 TITLE: New compound, useful in the manufacture of a medicament for inhibiting cell death or the translocation of a viral or bacterial toxin or viral transcription factor for treating or preventing bacterial or viral infections;  
 a fusion protein toxin conjugate complexed with a monoclonal antibody useful for the prevention and therapy of bacterium and virus infection  
 AUTHOR: MURPHY J R; RATIS R; PEARSON D A  
 PATENT ASSIGNEE: BOSTON MEDICAL CENT CORP  
 PATENT INFO: WO 2005014798 17 Feb 2005  
 APPLICATION INFO: WO 2004-US9829 31 Mar 2004  
 PRIORITY INFO: US 2003-459185 31 Mar 2003; US 2003-459185 31 Mar 2003  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 OTHER SOURCE: WPI: 2005-173098 [18]

AB

## DERVENT ABSTRACT:

NOVELTY - A compound of formula (I), is new.

DETAILED DESCRIPTION - The compound of formula (I), is new. X-AA210-AA211-AA212-AA213-AA214-AA215-AA216-AA217-AA218-AA219-AA220-AA221-AA222-Y (I). X = H or chain of amino acids (1-5 residues substituted at the N-terminus with a nitrogen protecting group, R1-C(O)-, or H); Y = H, OH, NH<sub>2</sub>, NHR<sub>2</sub>, NHR2R<sub>3</sub>, OR<sub>4</sub>, or chain of amino acids (1 to 76 residues substituted at the C-terminus with OH, NH<sub>2</sub>, NHR<sub>2</sub>, NHR2R<sub>3</sub>, or OR<sub>4</sub>); R1 = 1-6C alkyl, 6-10C aryl, 1-9C heterocyclyl, 1-6C alkoxy, 7-16C aralkyl, 2-15C heterocyclylalkyl, 7-16C aralkoxy, 2-15C heterocyclyloxy, or a polyethylene glycol moiety; R2 and R3 = H, 1-6C alkyl, 6-10C aryl, 1-9C heterocyclyl, 7-16C aralkyl, 2-15C heterocyclylalkyl, or a polyethylene glycol moiety; R4 = H, 1-6C alkyl, 6-10C aryl, 1-9C heterocyclyl, 1-6C alkoxy, 7-16C aralkyl, 2-15C heterocyclylalkyl, a carboxyl protecting group, or a polyethylene glycol moiety; AA210 = is Arg or Lys, preferably Arg; AA211 = is Asp or Glu, preferably Asp; AA212 = is Lys or Arg, preferably Lys; AA213 = is Thr, Ser, Ala, Gly, Val, Asn, or Gln, preferably Thr; AA214 = Lys or Arg, preferably Lys; AA215 = Thr, Ser, Ala, Gly, Val, Asn, or Gln, preferably Thr; AA216 = Lys or Arg, preferably Lys; AA217 = His, Leu or Val, preferably Ile; AA218 = Glu or Asp, preferably Glu; AA219 = Ser, Ala, or Gly, preferably Ser; AA220 = Leu, His or Val, preferably Leu; AA221 = Lys or Arg, preferably Lys; and AA222 = Glu or Asp, preferably Glu. INDEPENDENT CLAIMS are also included for the following: (1) a compound having a nucleic acid sequence encoding the peptide sequence of the compound of formula (I); (2) a method of identifying a compound that inhibits cell death in a mammal; and (3) a method of identifying a compound that promotes cell death in a mammal.

BIOTECHNOLOGY - Preferred Compound: The compound is useful in the manufacture of a medicament for inhibiting cell death in a mammal. The medicament further comprises a vehicle. The compound inhibits the translocation of a viral or bacterial toxin from the lumen of an endosome to the cytosol of the cell or the translocation of a viral or retroviral transcription factor. The toxin is an AB toxin. The toxin is Diphtheria toxin, a Botulinum toxin, Anthrax toxin LF or Anthrax toxin EF. The factor is human immunodeficiency virus reverse transcriptase. The factor is Tat. The nucleic acid sequence encodes a peptide sequence consisting of: (1) Arg-Asp-Lys-Thr-Lys-Thr-Lys-Ile-Glu-Ser-Leu-Lys-Glu-His-Gly-Pro-Ile-Lys-Asn-Lys-; (2) Asp-Trp-Asp-Val-Ile-Arg-Asp-Lys-Thr-Lys-Thr-Lys-Ile-Glu-Ser-Leu-Lys-Glu-His-Gly-; or (3) Arg-Asp-Lys-Thr-Lys-Thr-Lys-Ile-Glu-Ser-Leu-Lys-Glu-His-Gly-Pro-Ile-Lys-Asn-Lys. The nucleic acid sequence is operably linked to an inducible promoter. The expression of the peptide sequence is moderated by treating the cell with an agent consisting of doxycycline, retinal, cyclosporin or its analog, FK506, FK520, or rapamycin or its analog. Preferred Method: The compound is further reacted with a monoclonal antibody, or its fragment to form a covalent bond between a sulfur atom of the antibody and the maleimide group of the compound. Identifying a compound that inhibits cell death in a mammal comprises: (1) isolating endosomes from the cell; (2) placing the endosomes in a cytosolic buffer; (3) contacting the endosomes with a fusion protein-toxin, where the protein comprises a binding moiety for a component of the cell membrane of the cell and the toxin comprises a fragment of Diphtheria toxin; (4) contacting the endosomes with a cytosolic translocation factor complex; (5) contacting the endosomes with the compound; and (6) measuring translocation of the toxin, where a decreased level of the translocation relative to that observed in the absence of the compound indicates that the compound inhibits the cell death. The endosomes are early endosomes. The protein is IL-2. The fusion protein-toxin is DAB389IL-2. The cytosolic translocation factor comprises Hsp 90 and thioredoxin reductase. Measuring the translocation comprises measuring the ADP-ribosylation of elongation factor-2. Identifying a compound that promotes cell death in a mammal comprises: (1) isolating endosomes from the cell; (2) placing the endosomes in a cytosolic buffer; (3) contacting the endosomes with a fusion

protein-toxin, where the protein comprises a binding moiety for a component of the cell membrane of the cell and the toxin comprises a fragment of Diphtheria toxin; (4) contacting the endosomes with a cytosolic translocation factor complex; (5) contacting the endosomes with the compound; and (6) measuring translocation of the toxin, where an increased level of the translocation relative to that observed in the absence of the compound indicates that the compound promotes the cell death.

ACTIVITY - Antibacterial; Virucide. No biological data given.

MECHANISM OF ACTION - Vaccine.

USE - The compound is useful in the manufacture of a medicament for inhibiting cell death in a mammal, or for inhibiting the translocation of a viral or bacterial toxin, e.g., Diphtheria toxin, a Botulinum toxin, Anthrax toxin LF or Anthrax toxin EF, from the lumen of an endosome to the cytosol of the cell or the translocation of a viral or retroviral transcription factor, e.g., human immunodeficiency virus reverse transcriptase or Tat (claimed) for treating or preventing bacterial or viral infections.

EXAMPLE - No relevant examples given. (100 pages)

AN 2005-09828 BIOTECHDS Full-text  
 CC THERAPEUTICS, Protein Therapeutics; GENETIC TECHNIQUES and APPLICATIONS, Gene Expression Techniques and Analysis; DISEASE, HIV and Other Virus Infections; DISEASE, Infectious Disease (non-viral); PHARMACEUTICALS, Antibodies  
 CT FUSION PROTEIN, DIPHThERIA TOXIN, BOTULINUM TOXIN, ANTHRAX TOXIN, CONJUGATE, MONOCLONAL ANTIBODY, ENDOSOME, APPL., BACTERIUM, VIRUS, INFECTION, PREVENTION, THERAPY PROTEIN ANTIBACTERIAL VIRUCIDE PROTEIN SEQUENCE (24, 15)

L147 ANSWER 73 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
 ACCESSION NUMBER: 2003-04949 BIOTECHDS Full-text

TITLE: Producing antibodies in a mammal, useful in research, diagnostic, therapeutic or industrial applications, by administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal; antibody production via cell culture use in therapy and diagnosis

AUTHOR: ROBL J M; GOLDSBY R A

PATENT ASSIGNEE: AMHERST COLLEGE

PATENT INFO: WO 2002074938 26 Sep 2002

APPLICATION INFO: WO 2002-US8645 20 Mar 2002

PRIORITY INFO: US 2001-277460 20 Mar 2001; US 2001-277460 20 Mar 2001

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2002-759894 [82]

AB DERWENT ABSTRACT:

NOVELTY - Producing antibodies in a mammal comprising administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal in a site other than the peritoneal cavity, or during the embryonic or fetal stage of the recipient mammal, is new.

DETAILED DESCRIPTION - Producing antibodies in a mammal comprising: (a) administering an antibody-producing cell from donor source to a non-rodent, non-human recipient mammal in a site other than the peritoneal cavity, and isolating the antibodies produced by the antibody-producing cell from the recipient mammal; or (b) administering an antibody-producing cell from a donor source to a non-rodent, non-human recipient mammal during the embryonic or fetal stage of the recipient mammal, and isolating the antibodies produced by the antibody-producing cell from the recipient mammal during the embryonic, fetal or postnatal stage of the recipient mammal. INDEPENDENT CLAIMS are also included for the following: (1) transplanting an antibody-producing cell into a recipient mammal or non-human mammal; and (2) treating

or preventing a disease, disorder or infection in a mammal, comprising: (a) inserting a nucleic acid encoding a desired antibody into a cell obtained from the mammal to form an antibody-producing cell; and (b) administering the antibody-producing cell to the mammal.

**BIOTECHNOLOGY - Preferred Method:** In these methods, the immune system of the recipient mammal is less responsive than normal. The antibody-producing cell is administered to a mammary gland, uterus, dewlap, brisket, scrotum, testicle or hump of the recipient mammal. The antibody-producing cell (preferably at least 10 antibody-producing cells) is administered subcutaneously to the recipient mammal. These antibodies are isolated from the blood, milk or lymph of the recipient mammal. The antibodies are monoclonal, polyclonal, humanized or bifunctional. These antibodies are covalently linked to a toxin, therapeutically active compound, enzyme, cytokine or affinity tag. The method further comprises administering a compound that inhibits B-cell activity to the recipient mammal in order to reduce such activity in the mammal. The method further comprises administering a compound that inhibits T-cell activity to the recipient mammal in order to reduce the T-cell activity in the mammal. The antibody-producing cell may also be obtained from a donor source of a different genus or species as the recipient mammal. The method further comprises administering a cell (preferably an adult bone marrow cell or a fetal cell) of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. The method further includes administering a protein (specifically a serum protein) from a cell, embryo, fetus or mammal of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. In method (1), transplanting an antibody-producing cell into a recipient mammal comprises: (a) tolerizing the recipient mammal to the antibody-producing cell or to the antibodies produced by the antibody-producing cell; and (b) administering the antibody-producing cell to the recipient mammal. The antibody-producing cell may also be obtained from a donor source of a different genus or species as the recipient mammal. The tolerization comprises administering a cell (preferably an adult bone marrow cell or a fetal cell) of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. Tolerization also comprises administering the serum protein from a cell, embryo, fetus or mammal of the same genus or species as the donor source to the recipient mammal during the normal period of immune system development of the recipient mammal. The method may also comprise: (a) suppressing the immune system of the recipient mammal by administering a compound that inhibits B-cell and/or T-cell activity to the recipient mammal; and (b) administering an antibody-producing cell to the recipient mammal. Preferably, the recipient mammal is a human and the antibody-producing cell is a human cell. Transplanting an antibody-producing cell into a non-human recipient mammal may also comprise administering an antibody-producing cell to a recipient chimeric mammal, or to a mammal having a mutation that reduces or eliminates the expression or activity of immunoglobulin (Ig)M, IgD, IgG, IgE, IgA, RAG1 or RAG2. Preferably, the compound that inhibits B-cell activity is an anti-IgM antibody. The compound that inhibits T-cell activity is preferably cyclosporin, azathioprine, dexamethasone, an anti-CD3 antibody, an anti-CD2 antibody or an anti-CD25 antibody. The compound is administered to the recipient mammal during or after the normal period of immune system development of the recipient mammal. Method (2) further comprises inserting a nucleic acid encoding an oncogene prior to step (a), and removing the nucleic acid encoding an oncogene prior to step (b). **Preferred Recipient Mammal:** The recipient mammal is a chimeric mammal that comprises both cells of the same genus or species as the donor source and cells of a different genus or species. This chimeric mammal is generated by administering cells of the same genus or species as the antibody-producing cell to the recipient mammal.

during the embryonic or fetal stage of the recipient mammal. The recipient mammal may also comprise a mutation (which is preferably a homozygous mutation) that reduces or eliminates the expression or activity of IgM, IgD, IgG, IgE, IgA, RAG1 or RAG2. The recipient mammal is a sheep, goat, buffalo, rabbit, pig, or preferably a cow or human.

USE - The method is useful for producing antibodies in mammals. The antibodies produced are useful in research, diagnostic, therapeutic or industrial applications.

ADMINISTRATION - The antibody-producing cell (preferably at least 10 antibody-producing cells) is administered subcutaneously to the recipient mammal (claimed).

ADVANTAGE - The present method is rapid and less expensive than prior methods. This method also produces little or no discomfort in the mammals that generate the antibodies.

EXAMPLE - A mouse hybridoma that secretes anti-tetanus antibody was produced using standard methods by the polyethylene glycol (PEG)-assisted fusion of mouse SP2/0 cells with spleen cells from a Balb/C mouse immunized with tetanus toxoid. 5x10 to the power 8 cells of this hybridoma were injected into the dewlap, and 5x10 to the power 8 cells were injected into the mammary region of a 14 day old male calf. A blood sample was taken 10 days after implantation contained mouse immunoglobulin, which reacted with tetanus toxoid but did not react with bovine serum albumin (BSA) or a peptide derived from beta amyloid protein, based in standard enzyme linked immunosorbent assay (ELISA) analysis.(60 pages)

AN 2003-04949 BIOTECHDS Full-text

CC PHARMACEUTICALS, Antibodies; BIOMANUFACTURING and BIOCATALYSIS,

Animal/Plant Cell Culture; DIAGNOSTICS, Antibody-Based Diagnostics

CT MONOCLONAL ANTIBODY, HUMANIZED ANTIBODY PREP., HYBRIDOMA, NON-RODENT,

NON-HUMAN RECIPIENT MAMMAL, SHEEP, GOAT, BUFFALO, RABBIT, PIG, CATTLE,

APPL. DIAGNOSIS, THERAPY ANTIBODY ENGINEERING CELL CULTURE ANIMAL MAMMAL

(22, 09)

L147 ANSWER 74 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-13076 BIOTECHDS Full-text

TITLE: New human antibody that specifically binds to *Pseudomonas aeruginosa* lipopolysaccharide, useful for treating or preventing *Pseudomonas aeruginosa* infection in patients with burns or prosthesis;  
antibody engineering for use in infection therapy

AUTHOR: SCHREIBER J R; KAMBOJ K K

PATENT ASSIGNEE: SCHREIBER J R; KAMBOJ K K

PATENT INFO: WO 200202619 14 Mar 2002

APPLICATION INFO: WO 2000-US28019 7 Sep 2000

PRIORITY INFO: US 2001-259472 3 Jan 2001

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2002-351767 [38]

AB DERWENT ABSTRACT:

NOVELTY - An isolated human antibody or its antigen-binding portion (I), that was expressed in a non-human animal and specifically binds to *Pseudomonas aeruginosa* (PA) lipopolysaccharide (LPS), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a pharmaceutical composition (PC) comprising (I); (2) a kit (K) comprising (I), a pharmaceutically acceptable carrier and a container; (3) an isolated cell line (II) that produces (I); (4) producing (I); (5) a nucleic acid molecule (III) isolated from a non-human animal that encodes a human antibody heavy chain (Ab1), or a human antibody light chain (Ab2) or their antigen-binding portion that specifically binds to PA LPS; (6) a vector (IV) comprising (III); (7) an isolated host cell (Va) comprising, (III) or (IV); (8) recombinantly producing Ab1 and/or Ab2; (9) an isolated heavy chain

or light chain or their antigen-binding portions obtained from (I), encoded by (III), or isolated from (V); (10) a non-human transgenic animal (VI) comprising (III); (11) a fusion protein (VII) comprising (I) and a second polypeptide sequence; (12) a hybridoma cell line (VIII) that produces the S20 mAb, and having a specific American Type Culture Collection Accession Number; (13) a monoclonal antibody produced by (VIII); (14) a human monoclonal antibody (IX) or its antigen-binding portion that inhibits the binding of (I); and (15) a passive vaccine for preventing or inhibiting PA infection, comprising (I) or (IX).

**BIOTECHNOLOGY - Preparation:** (I) is obtained by culturing a non-human cell capable of producing (I) under conditions in which (I) is produced, and isolating the antibody from the cell culture. The cell is a hybridoma or is transformed with isolated nucleic acids encoding (I), where the cell is bacterial, yeast, insect, amphibian, or mammalian. The mammalian cell is human, mouse, rat, dog, monkey, goat, pig, bovine or hamster. It is preferably a HeLa cell, NIH 3T3 cell, a Chinese hamster Ovary (CHO) cell, a Baby Hamster Kidney (BHK) cell, a VERO cell, a CV-1 cell, a NS/0 cell, or a COS cell. (I) is also produced by: (a) immunizing a non-human animal having incorporated a human immunoglobulin locus, with a PA antigenic composition; (b) allowing the non-human animal to mount a humoral response to the antigenic composition; and (c) isolating the human antibody from the non-human animal. Alternately, (I) is produced by: (a) immunizing a non-human animal comprising a human immunoglobulin locus, with an antigen selected from: (i) a PA LPS preparation; (ii) a virile PA cell preparation; or (iii) an attenuated or killed PA cell preparation; (b) allowing the non-human animal to mount an immune response to the antigen; and (c) isolating the antibody from the non-human animal. The antibody is isolated from the animal or cell that is free of contaminating human biomaterials. Preferred Antibody: (I) opsonizes and facilitates phagocytosis of, enhances the immune response to, and facilitates the killing of, PA cells, by delivering an agent lethal to PA cells. (I) inhibits PA infection, and binds to PA LPS with a dissociation constant ( $K_d$ ) of  $1 - 5 \times 10^{-7}$  M, preferably  $1 - 5 \times 10^{-8}$  M. PA LPS is derived from a PA strain 06ad, 011, Habs16, 170003 or PA01 Halloway. (I) has a half-life in vivo of 1 hour to 30 days, preferably 1 hour to 15 days. (I) is derived from an immunoglobulin molecule having a heavy chain isotype chosen from immunoglobulin G (IgG), IgM, IgE, IgA and IgD. (I) comprises a kappa light chain and its framework sequences encoded by a Vk2/A2 gene, or a lambda light chain. The kappa light chain comprises a sequence of 127 amino acids, given in the specification, encoded by a sequence comprising 381 nucleotides, given in the specification. (I) further comprises a heavy chain composed of variable (V), diversity (D), and Joining (J) regions composed of their framework sequences. Region (V) is encoded by a human VH3/V3-33 gene, and (D) is encoded by a human D2-8 gene, and (J) is encoded by a human JH4b gene. The heavy chain comprises a sequence of 154 amino acids, given in the specification, encoded by a sequence of 462 nucleotides, given in the specification. (I) is a single chain or bispecific chimeric antibody. (I) is derivatized with a polyethylene glycol, methyl or ethyl group or carbohydrate group. (I) is a fusion with a second protein. (I) specifically binds to an PA LPS O-specific side chain, preferably to PA strain PA01 LPS O-specific side chain or PA strain 170003 LPS O-specific side chain. The antibody or antigen-binding portion of it is labeled with a radiolabel, enzyme label, fluorescent label, toxin, magnetic agent, second antibody, affinity label, epitope tag, antibiotic, complement protein or cytokine. The isolated heavy chain or antigen binding portion is mu, gamma, delta, epsilon, or alpha, and comprises 1 - 10 amino acid substitutions that increase the serum half-life of the antibody. Preferred Animal: (VI) is a mouse, rat, hamster, cow, sheep, primate, horse or pig. (I) is expressed on the surface of cells derived from the animal's B-lymphocyte cells or its progeny. (I) is secreted into lymph, blood, milk, saliva or ascites of the animal. The relative binding avidity of (I) is 1.0. Preferred Nucleic Acid:

(III) comprises a sequence of 462 nucleotides encoding Abl or a sequence of 381 nucleotides encoding Ab2, where the sequences are given in the specification.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Phagocytosis of PA opsonizer and facilitator; immune response to PA enhancer; PA infection inhibitor (claimed); vaccine. The protective efficacy of (I) against invasive infection with *P. aeruginosa* (PA) was measured in the neutropenic mouse model. Six week-old female BALB/c ByJ mice were maintained in a pathogen-free, pseudomonas-free environment. Neutropenia was established by administering 3 mg of cyclophosphamide, intraperitoneally (i.p.) to each mouse on days 1, 3 and 5. On day 5, cyclophosphamide was administered at time 0 hours, and 2 hours later 10 micrograms of S20 or phosphate buffered saline (PBS) control was administered i.p., followed by 10 to the power of 3 colony forming units (cfu) of live *P. aeruginosa* 06ad PA two hours later. Mice were observed daily and mortality was the outcome measured. Infected mice treated with the PBS control began dying one day after PA infection. After two days, 100 % of the mice treated with S20 antibody showed protection and were alive two days after PA infection, demonstrating the protective potential of S20 in preventing PA-related fatalities in patients.

USE - (I) is useful for treating or preventing PA infection in patients with burns or prosthesis, or a surgical, respiratory, cancer, cystic fibrosis or an immunocompromised patient. (I) is also useful for detecting the presence of PA in a biological sample (claimed).

ADMINISTRATION - (I) is administered through transmucosal, oral, inhalation, ocular, rectal, long acting implantation, liposomes, emulsion, cream, topical or sustained release means (claimed). No dosage is specified.

EXAMPLE - *Pseudomonas aeruginosa* (PA) serotype 06ad was used for mouse immunizations, mouse protection assays and opsonic assays. Bacteria for mouse challenge assays were incubated at 37 degrees Centigrade, and 1 colony forming unit (cfu) was inoculated into Luria-Bertani (LB) broth and was incubated at 37 degrees Centigrade in a shaking water bath to a concentration of 5 x 10 to the power of 8 cfu/ml. Bacteria were centrifuged, resuspended, washed, grown for immunizations and heat-killed at 60 degrees Centigrade for 1 hour. A high molecular weight (MW) polysaccharide portion of lipopolysaccharide (LPS) O-specific side chains from PA strains 06ad, 011, Habs16, 170003, and PA01 Halloway LPS were made and were lyophilized. The high MW PS were used to coat 96-well plates for enzyme-linked immunosorbant assays (ELISA). The 06ad high MW PS was also used in blocking and avidity. Mice that were transgenic for human heavy and light immunoglobulin (Ig) were bred and maintained. The strain of Xenomouse (RTM) used was Xma2a-3, which was an Ig-inactivated mouse reconstituted with a yeast artificial chromosome (YAC) containing cointegrated human heavy and light chain transgenes. Mice were immunized with 10 to the power of 7 heat-killed PA 06ad PA twice per week intraperitoneally (i.p.) and/or in foot pad, and their sera screened for anti-PA 06ad LPS antibodies by ELISA. Hybridomas were generated by fusing spleen and/or lymph node cells from immunized, seropositive Xenomouse(RTM) animals with a nonsecreting sp2/0 myeloma cell line. Supernatants from hybridomas were screened for production of human anti-PA 06ad LPS by ELISA, and hybridomas found to be secreting IgG anti-LPS antibodies were then cloned three times by limiting dilution. One IgG2-secreting clone (S20) was chosen based on initial measurements of strength of binding to solid phase PA 06ad PS. (84 pages)

AN 2002-13076 BIOTECHDS Full-text

CC PHARMACEUTICALS, Antibodies; GENETIC TECHNIQUES and APPLICATIONS, Gene Expression Techniques and Analysis; GENETIC TECHNIQUES and APPLICATIONS, Transgenic Animals and Animal Models; DISEASE, Infectious Disease (non-viral); BIOMANUFACTURING and BIOCATALYSIS, Animal/Plant Cell Culture; THERAPEUTICS, Protein Therapeutics; PHARMACEUTICALS, Vaccines  
CT PSEUDOMONAS AERUGINOSA LIPOPOLYSACCHARIDE-SPECIFIC HUMAN MONOCLONAL

ANTIBODY PREP., FUSION PROTEIN PREP., VECTOR-MEDIATED GENE EXPRESSION IN E.G. HYBRIDOMA, BACTERIUM, YEAST, INSECT, AMPHIBIAN, MAMMAL, HUMAN, MOUSE, RAT, DOG, MONKEY, GOAT, PIG, CATTLE, HAMSTER CELL, HELA, NIH3T3, CHO, BHK, VERO, CV-1, NS/0, COS CELL CULTURE, NON-HUMAN TRANSGENIC ANIMAL, ANTIBODY ENGINEERING, APPL. BURN PATIENT INFECTION, PROSTHESIS-INDUCED INFECTION THERAPY, VACCINE BACTERIUM MAMMAL ANIMAL ANTIBODY ENGINEERING FUNGUS ARTHROPOD CELL CULTURE HUMAN CERVIX CARCINOMA TUMOR MOUSE FIBROBLAST CHINESE HAMSTER OVARY BABY HAMSTER KIDNEY MONKEY KIDNEY (21, 40)

L147 ANSWER 75 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1995-13156 BIOTECHDS Full-text

TITLE: Mutated antibody with non-native light chain  
glycosylation; antibody engineering for introduction of an asparagine glycosylation site for attachment of a label or therapeutic; immunotoxin and immunotherapy

AUTHOR: Hansen H J; Leung S

PATENT ASSIGNEE: Immunomedics

PATENT INFO: WO 9515769 15 Jun 1995

APPLICATION INFO: WO 1994-US13668 5 Dec 1994

PRIORITY INFO: US 1993-162912 6 Dec 1993

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 1995-224151 [29]

AB A new mutated recombinant antibody (Ab) or Ab fragment has a non-native Asn glycosylation site at position 18 of the light chain. Also new are: soluble immunoconjugates of a Fab, Fab', F(ab)2, F(ab')2, Fv or single chain Fv fragment including a light chain variable region substituted by a carbohydrate at position 18 and a polymer with over 1 free amino group (for covalent bonding to the carbohydrate substituent) and many covalently bound drug, toxin, chelator, boron addend or detectable label molecules; and similar soluble immunoconjugates, but with more than 1 drug, toxin, chelator, PEG, boron addend or detectable label covalently linked to the carbohydrate substituent. The conjugates retain the immunoreactivity of the antibody fragment. The immunoconjugates when labeled are useful for diagnosis of diseases where the Ab is specific for a disease-associated antigen and for therapy of e.g. myocardial infarction, deep vein thrombosis, atherosclerosis, inflammatory disease, cancer and autoimmune disease. (86pp)

AN 1995-13156 BIOTECHDS Full-text

CC D PHARMACEUTICALS; D6 Antibodies; A GENETIC ENGINEERING AND FERMENTATION; A1 Nucleic Acid Technology

CT RECOMBINANT ANTIBODY ENGINEERING, ASPARAGINE GLYCOSYLATION SITE INTRODUCTION TO LIGHT CHAIN, APPL. DEEP VEIN THROMBOSIS, MYOCARDIAL INFARCTION, ATHEROSCLEROSIS, INFLAMMATORY DISEASE, CANCER, AUTOIMMUNE DISEASE, DIAGNOSIS, IMMUNOTOXIN, IMMUNOTHERAPY FAB FAB' F(AB)2 F(AB')2 FV SINGLE CHAIN ANTIBODY TOXIN TUMOR PROTEIN THERAPY ANTITUMOR ANTIINFLAMMATORY (VOL.14, NO.22)

L147 ANSWER 76 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1990-12597 BIOTECHDS Full-text

TITLE: Purified carbohydrate isolated from chronic myelogenous leukemia cell; useful for raising monoclonal antibody for use in diagnosis and therapy or as immunotoxin.

PATENT ASSIGNEE: La-Jolla-Cancer-Res.Found.

PATENT INFO: US 4939088 3 Jul 1990

APPLICATION INFO: US 1986-924935 30 Oct 1986

PRIORITY INFO: US 1986-924935 30 Oct 1986

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 1990-224016 [29]

AB The purified carbohydrate, CML-G2, of structure (I) is new. (I) is a specific marker from chronic myelogenous leukemia (CML) cells. It is immunogenic and can be used to produce polyclonal and monoclonal antibodies for diagnosis and therapy. It is isolated from granulocyte cells from CML patients using column chromatography, HPLC and high performance-TLC. In an example of the preparation of CML-G2 specific monoclonal antibodies, BALB/c mice were immunized with CML-G2, and spleen cells from immunized mice were fused with other mammalian myeloma cells at a fusion ratio of 10:1 in 35% PEG. Hybridomas were selected in HAT-containing medium and were screened for reactivity against CML-G2 via ELISA. Positive clones were expanded and subcloned twice. The resulting monoclonal antibodies may be conjugated with diphtheria toxin A chain or with ricin to form immunotoxins. The antibodies and immunotoxins are used in the therapy and diagnosis of CML. (9pp)

AN 1990-12597 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT HUMAN CHRONIC MYELOGENOUS LEUKEMIA TUMOR MARKER CARBOHYDRATE CML-G2 ISOL., PURIFICATION, MOUSE MONOCLONAL ANTIBODY PREP., HYBRIDOMA CONSTRUCTION, DIPHTHERIA TOXIN-A, RICIN IMMUNOTOXIN PREP., APPL. DIAGNOSIS, THERAPY MAMMAL CELL CULTURE CYTOSTATIC

L147 ANSWER 77 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1989-04742 BIOTECHDS Full-text

TITLE: New protein receptor p70-75 for interleukin-2;  
recombinant interleukin-2 receptor capable of binding  
p70-75 and useful for destroying LAK-sensitive cell;  
monoclonal antibody preparation and hybridoma construction

PATENT ASSIGNEE: U.S.Dept.Commerce

PATENT INFO: WO 8900168 12 Jan 1989

APPLICATION INFO: WO 1988-US1806 27 May 1988

PRIORITY INFO: US 1988-165302 3 Mar 1988; US 1987-66989 29 Jun 1987

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 1989-039632 [05]

AB A protein of mol.weight 70-75,000 and with specific binding affinity to an epitope of interleukin-2 (IL-2) is new. The protein rests on IL-2-activated large granular lymphocytes and is a component of a high affinity interleukin-2 receptor. Also new are: (1) lymphokine-activated killer (LAK) cells produced by the interaction of lymphocytes that express the protein with IL-2W1; (2) a method for destroying LAK-sensitive cells which comprises contacting them with the LAK cells; (3) IL-2W1; (4) IL-2W2; (5) a pharmaceutical composition comprising an effective amount of LAK and a carrier; (6) anti-p70-75 antibody or its fragment; (7) a p70-75 antibody conjugated to a cytotoxic agent (e.g. a toxin or a radionuclide); and (8) a method for neutralizing or killing p70-75 expressing cells using the antibody. In an example, p70-75 was injected twice into BALB/c mice at 3-wk-intervals. Spleen cells were fused with NS1 mouse myeloma cells using 30% PEG and hybridomas were selected in HAT medium and tested for monoclonal antibody production in an ELISA. Positive hybridomas were cloned by limiting dilution. (19pp)

AN 1989-04742 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals; A MICROBIOLOGY; A1 Genetics

CT RECOMBINANT INTERLEUKIN-2 RECEPTOR PREP., NEW RECOMBINANT GP70-75 EPITOPE LYMPHOKINE ACTIVATED KILLER CELL CULTURE, MONOCLONAL ANTIBODY PREP., HYBRIDOMA CONSTRUCTION MAMMAL CELL CULTURE

L147 ANSWER 78 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1989-04118 BIOTECHDS Full-text

TITLE: Production of IgD antibody and toxin conjugate for leukemia therapy;

IgD monoclonal antibody production and hybridoma construction

PATENT ASSIGNEE: Univ.Texas-Syst.

PATENT INFO: US 4792447 20 Dec 1988

APPLICATION INFO: US 1983-498754 27 May 1983

PRIORITY INFO: US 1983-498754 27 May 1983

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 1989-015609 [02]

AB A new process for treating B-lymphocyte tumors (e.g. leukemia) in mammals involves administering an antibody-toxin conjugate which comprises an IgD-specific antibody and one or more toxin molecules. Suitable toxins include the A-chain portion of ricin, abrin, modeccine, botulin, and diphtheria toxin. The antibody can be an Fab, Fab', Fab'2, or Fv fragment. The toxin(s) is coupled to the antibody either by direct condensation or via a bridging group e.g. diisocyanate, or glutaraldehyde. In an example, spleen cells from BALB/c mice bearing the monoclonal mouse B-lymphocyte leukemia tumor BCL1 were stimulated and fused with P3/X63-Ag.8 myeloma cells using PEG. The resultant hybridomas secreted IgM-lambda. IgM was purified from ascites and used to stimulate production of rabbit anti-idiotype. Rabbits were immunized with 100 ug IgM in complete Freund's adjuvant (CFA). 100 ug Boosters were administered 4 wk later, and 100 ug booster in CFA were administered when titers of immunoglobulin production dropped after 1 wk-1 yr. The anti-idiotype was purified by affinity chromatography and were conjugated with toxin. (9pp)

AN 1989-04118 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT B-LYMPHOCYTE LEUKEMIA TUMOR BCL1, IGD MONOCLONAL ANTIBODY PREP., HYBRIDOMA CONSTRUCTION, ANTI-IDIOTYPE IMMUNOTOXIN CONJUGATE PREP., APPL. IN LEUKEMIA THERAPY MAMMAL CELL CULTURE RICIN ABRIN MODECCINE BOTULINA DIPHTHERIA TOXIN

L147 ANSWER 79 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1986-09982 BIOTECHDS Full-text

TITLE: Protection of mice against tetanus toxin by combination of two human monoclonal antibodies recognizing distinct epitopes on the toxin molecule;

hybridoma generation and monoclonal antibody production

AUTHOR: Ziegler-Heitbrock H W; Reiter C; Trenkmann J; Fuetterer A; Riethmueller G

LOCATION: Institute for Immunology, University of Munich, Goethestrasse 31, 8 Muenchen 2, Germany.

SOURCE: Hybridoma; (1986) 5, 1, 21-31  
CODEN: HYBRDY

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The human lymphoblastoid B-lymphocyte cell line WI-L2-729 HF2 was fused with B-lymphocytes derived from peripheral blood or from spleens. Before fusion the mononuclear cells were thawed and stimulated for 4 days with pokeweed mitogen and tetanus toxoid (TToxoid). HF2 cells and precultured spleen cells were washed twice with serum-free medium and cells were pelleted together and fused using PEG 4000. Hybridomas were selected on medium containing hypoxanthine and azaserine. 2 Hybridomas were selected based on high binding activity using ELISA for TToxoid. Both hybridomas were cloned twice and designated TT1 and TT2 which exhibited stable production of monoclonal

antibody over several months. These 2 monoclonal antibodies bound the heavy chain portion of the B-fragment (TT1) and on the C-fragment (TT2) of the toxin. Together the 2 antibodies showed higher binding activity than either reagent alone. In an *in vivo* neutralization assay mice were completely protected against TToxin by the combination of the 2 antibodies while either antibody alone resulted only in a delay in the death of the mice. (15 ref)

AN 1986-09982 BIOTECHDS Full-text  
CC D PHARMACEUTICALS; D5 Other Pharmaceuticals; J CELL CULTURE; J1 Animal  
Cell Culture  
CT TETANUS TOXIN HUMAN MONOClonAL ANTIBODY PREP., HYBRIDOMA GENERATION,  
DISTINCT EPITOPE DET., PROPHYLAXIS MAMMAL CELL CULTURE

L147 ANSWER 80 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 1984-10843 BIOTECHDS Full-text  
TITLE: Neutralization of tetanus toxin by distinct  
monoclonal antibodies binding to multiple  
epitopes on the toxin molecule;  
construction of a hybridoma secreting monoclonal antibody  
AUTHOR: Volk W A; Bizzini B; Snyder R M; Bernhard E; Wagner R R  
CORPORATE SOURCE: Inst.Pasteur  
LOCATION: Department of Microbiology, University of Virginia,  
Charlottesville, Virginia 22908, USA.  
SOURCE: Infect.Immun.; (1984) 45, 3, 604-09  
CODEN: INFIBR  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB 57 Hybridomas producing monoclonal antibodies to tetanus toxoid or to the I-bv or B-IIb fragment of the toxin were isolated. BALB/c mice were injected s.c. with tetanus toxoid and at monthly intervals the mice were given 3 additional boosters. Mice immunized with the B-IIb fragment of toxin were injected similarly and those immunized with the I-bc fragment were injected in each hind footpad. Booster injections were given as described for tetanus toxoid. 4 Days before the mice were killed they received an i.v. injection of antigen. Spleen cells were fused with Sp2/0 myeloma cells using Polyethylene glycol. The hybrid cells were cultured and monoclonal antibodies were detected in hybridoma supernatant solutions by an ELISA. Competitive inhibition studies demonstrated that monoclonal antibodies from mice immunized with the toxoid bound to at least 20 different epitopes on the toxoid molecule. The binding of a few antibodies was studied in more detail. (23 ref)

AN 1984-10843 BIOTECHDS Full-text  
CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other  
Pharmaceuticals  
CT TETANUS TOXOID MONOClonal ANTIBODY PREP., CHARACTERIZATION, HYBRIDOMA  
CONSTRUCTION

L147 ANSWER 81 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN  
ACCESSION NUMBER: 1984-10330 BIOTECHDS Full-text  
TITLE: Cross-reactivity of monoclonal antibodies against Clostridium  
perfringens theta toxin with streptolysin O;  
hybridoma construction and monoclonal antibody preparation  
AUTHOR: Sato H; Ito A; Chiba J  
LOCATION: Second Department of Bacteriology, National Institute of  
Health, Shinagawa-ku, Tokyo 141, Japan.  
SOURCE: Curr.Microbiol.; (1984) 10, 5, 243-48  
CODEN: CUMIDD  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A BALB/c mouse was primed with an i.p. injection of alum-precipitated  
Clostridium perfringens theta toxoid supplemented with pertussis toxoid.

After 7 wk, theta toxoid was given i.v. without adjuvant. 3 Days later, spleen cells were fused to SP2/0-Ag14 myeloma cells using 50% polyethylene glycol 4000. After selection of hybridoma cells in hypoxanthine, aminopterin, thymidine medium, the presence of monoclonal antibody against theta toxin in the culture fluids was tested by ELISA. Selected lines were cloned by limiting dilution, and monoclonal antibodies were prepared by injection of hybridoma cells into pristane-primed BALB/c mice for ascites fluid production. 6 Monoclonal antibodies were characterized. 4 Were non-neutralizing for theta toxin and were non-cross-reacting with streptolysin O (SLO). The other 2 antibodies (3H10 and 2C5) were cross-binding and cross-neutralizing with SLO. Neutralizing activity of 3H10 was higher than that of 2C5 on the basis of the binding activity with theta toxin and SLO. Both antibodies inhibited hemolysis even after binding of the toxins to sheep RBC. (21 ref)

AN 1984-10330 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture

CT CLOSTR. PERFRINGENS THETA TOXIN MONOCLONAL ANTIBODY PREP., CROSS-REACTIVITY WITH STREPTOLYSIN O, HYBRIDOMA CONSTRUCTION

L147 ANSWER 82 OF 84 BIOTECHDS COPYRIGHT 2008 THE THOMSON CORP. on STN

ACCESSION NUMBER: 1983-06620 BIOTECHDS Full-text

TITLE: Development aspects of immunologically characterized proteins ;

the application of hybridoma technology and monoclonal antibody production to clinical diagnosis

AUTHOR: Falkenberg F W; Gantenbergs W; Juergenliemk I; Mayer M; Pierard D; Riffelmann H D

LOCATION: Department of Medical Microbiology and Immunology, Division of Medicine, Ruhr-Universitaet of Bochum, 4630 Bochum, Germany.

SOURCE: Clin.Biochem.; (1983) 16, 1, 10-16

CODEN: CLBIAS

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hybridoma technology and the production of monoclonal antibody is discussed in relation to the development of clinical tests, using the example of monoclonal antibodies to human kidney tissue antigens. These antibodies were prepared as follows: immune cells were obtained from mice hyperimmunized with human kidney cortex plasma membranes. The cells were fused with NS-1 plasmacytoma cells using polyethylene glycol. Hybridomas were selected, cloned on soft agar, and used for the production of ascitic fluid. Specific monoclonal antibodies were detected by indirect immunofluorescence. 50 Monoclonal antibodies were obtained and were used for the detection of antigens in kidney related disease. Antibodies to bacteria, viruses and parasites could be very useful for rapid identification of disease causing organisms. Human tumor specific antibodies could be used to diagnose cancers and possibly in treatment. Antibodies conjugated with toxins such as cis-platinum or daunamycin have been used to specifically attack tumor cells. (27 ref)

AN 1983-06620 BIOTECHDS Full-text

CC J CELL CULTURE; J1 Animal Cell Culture; D PHARMACEUTICALS; D5 Other Pharmaceuticals

CT MONOCLONAL ANTIBODY CLINICAL APPL., HYBRIDOMA TECHNOLOGY

L147 ANSWER 83 OF 84 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:140324 SCISEARCH Full-text

THE GENUINE ARTICLE: WG542

TITLE: Immune response in ADEPT

AUTHOR: Sharma S K (Reprint)

CORPORATE SOURCE: ROYAL FREE HOSP, SCH MED, CRC, CLIN RES LABS, DEPT CLIN ONCOL, ROWLAND HILL ST, LONDON NW3 2PF, ENGLAND (Reprint)

COUNTRY OF AUTHOR: ENGLAND

SOURCE: ADVANCED DRUG DELIVERY REVIEWS, (15 DEC 1996)

Vol. 22, No. 3, pp. 369-376.

ISSN: 0169-409X.

PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.

DOCUMENT TYPE: General Review; Journal

FILE SEGMENT: LIFE

LANGUAGE: English

REFERENCE COUNT: 55

ENTRY DATE: Entered STN: 1997  
Last Updated on STN: 1997  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

ED Entered STN: 1997  
Last Updated on STN: 1997

AB Cancer therapy using murine monoclonal antibodies, radiolabelled as in radioimmunotherapy or conjugated to bacterial toxins or enzymes in antibody directed enzyme prodrug therapy (ADEPT) usually leads to the production of human anti-mouse antibodies (HAMA) and human anti-toxin or human anti-enzyme antibodies in the patient. In most cases, this response interferes with the delivery of the antibody or the conjugate to the target and may also lead to adverse clinical side effects. The immune response to antibodies and enzymes may partly be avoided by use of humanised antibodies and human enzymes and immunosuppression. This chapter outlines some of the problems associated with the use of murine monoclonal antibodies conjugated to a bacterial enzyme and some of the approaches that have been studied to reduce the immunogenicity of proteins.

CC PHARMACOLOGY & PHARMACY

ST Author Keywords: ADEPT; immunogenicity; antibody-enzyme conjugate; cyclosporin

STP KeyWords Plus (R): MONOCLONAL-ANTIBODY THERAPY; POLYETHYLENE-GLYCOL; CANCER-PATIENTS; MONOMETHROXYPOLYETHYLENE GLYCOL; PRODRUG ACTIVATION; COLORECTAL-CANCER; MOUSE ANTIBODY; CYCLOSPORINE-A; L-ASPARAGINASE; IMMUNOGENICITY  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L147 ANSWER 84 OF 84 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:307580 SCISEARCH Full-text

THE GENUINE ARTICLE: HT510

TITLE: ENHANCEMENT OF TUMOR UPTAKE OF MONOCLONAL-ANTIBODY IN NUDE-MICE WITH PEG IL-2

AUTHOR: DENARDO G L (Reprint); DENARDO S J; LAMBORN K R; VANHOOSER K A; KROGER L A

CORPORATE SOURCE: UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT INTERNAL MED, SACRAMENTO, CA 95817; UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT RADIOL, SACRAMENTO, CA 95817; UNIV CALIF DAVIS, SACRAMENTO MED CTR, DEPT PATHOL, SACRAMENTO, CA 95817; QUINTILES PACIFIC INC, PALO ALTO, CA 94303

COUNTRY OF AUTHOR: USA

SOURCE: ANTIBODY IMMOCONJUGATES AND RADIOPHARMACEUTICALS, (WIN 1991) Vol. 4, No. 4, pp. 859-870.

ISSN: 0892-7049.

PUBLISHER: MARY ANN LIEBERT INC PUBL, 2 MADISON AVENUE, LARCHMONT, NY 10538.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: English

REFERENCE COUNT: 56

ENTRY DATE: Entered STN: 1994

Last Updated on STN: 1994

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

ED Entered STN: 1994

Last Updated on STN: 1994

AB Antibodies, both unconjugated and conjugated to toxins, have been reported to be effective treatment for some cancers and toxicity has been modest. However, the results have not been as dramatic as expected considering the unique specificity of targeting of monoclonal antibodies. This appears to be due in part to disappointingly low accumulation of antibody in the tumor relative to that administered. While interleukin 2 (IL-2) is not known to have significant, specific targeting for cancer, it's use has led to therapeutic results in a few cancers. Toxicity, primarily a vascular leakage syndrome, has severely restricted this treatment. Because the vessel walls represent a barrier to the egress of large molecules like immunoglobulins, we examined the potential of rIL-2 modified by conjugation with Polyethylene glycol (PEG-IL-2) to increase tumor uptake of a monoclonal antibody, Lym-1, in nude mice implanted with Raji human lymphoma. A dose dependent enhancement of tumor concentration of antibody was observed after a single injection of PEG-IL-2. The maximum enhancement of tumor concentration of antibody by PEG-IL-2 was a factor of two-times. The interval of time between injection of PEG-IL-2 and injection of the antibody was also significant. No toxicity, but some increase in wet-weight and decrease in antibody concentration in most non-tumored tissues, was observed at doses of PEG-IL-2 of 8,000-80,000 IU. These results provide evidence for the potential of relatively nontoxic doses of PEG-IL-2 to enhance the efficacy of cancer treatment with monoclonal antibodies. In addition to the impetus for similar studies in patients, these observations justify additional studies to explore the mechanisms of action of IL-2 in the nude mouse.

CC IMMUNOLOGY; RADIOLOGY, NUCLEAR MEDICINE &amp; MEDICAL IMAGING

STP KeyWords Plus (R): ENDOTHELIAL-CELL MONOLAYERS; ALLOWS INVIVO INDUCTION; ACTIVATED KILLER CELLS; RECOMBINANT INTERLEUKIN-2; LYMPHOCYTES-T; DIFFERENTIATION ANTIGEN; ADVANCED CANCER; THERAPY; RADIOIMMUNOTHERAPY; LEUKEMIA

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

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 L9           QUE ABB=ON PLU=ON NEOSE/CS, SO, PA  
 L11          QUE ABB=ON PLU=ON AB  
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 L24          QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC  
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## 10/565,331

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L23 OR L24 OR L25 OR L26 OR L27 OR L28)  
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=> d his 162

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 09:18:02 ON 30 APR 2008)  
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=> d que nos 162

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=> d que 186

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L32           QUE ABB=ON PLU=ON C07K0017-08/IPC  
L70           QUE ABB=ON PLU=ON RA00C8/DCN OR 184587/DCR, DCRE, KW  
L71           QUE ABB=ON PLU=ON (R00351 OR P8004)/PLE  
L72           QUE ABB=ON PLU=ON "L8"/M0,M1,M2,M3,M4,M5,M6  
L73           QUE ABB=ON PLU=ON K224/M0,M1,M2,M3,M4,M5,M6  
L74           660 SEA FILE=WPIX ABB=ON PLU=ON L70 AND L71  
L75           214 SEA FILE=WPIX ABB=ON PLU=ON L74 AND L72  
L76           40 SEA FILE=WPIX ABB=ON PLU=ON L75 AND L73  
L77           12 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L29 OR L30 OR L31 OR  
L32)  
L79           852 SEA FILE=WPIX ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR  
L17)) (20A)L13  
L80           1471 SEA FILE=WPIX ABB=ON PLU=ON (((L11 OR L12) (5A)(L16 OR  
L17)) (20A)L23) (L)L13  
L81           12 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80))  
L82           1 SEA FILE=WPIX ABB=ON PLU=ON L76 AND (L79 OR L80)  
L83           12 SEA FILE=WPIX ABB=ON PLU=ON (L81 OR L82)  
L84           12 SEA FILE=WPIX ABB=ON PLU=ON L83 AND (L11 OR L12 OR L13 OR  
L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR  
L23 OR L24)  
L85           12 SEA FILE=WPIX ABB=ON PLU=ON (L83 OR L84)  
L86           1 SEA FILE=WPIX ABB=ON PLU=ON L85 AND (L6 OR L7 OR L8 OR L9)

```
=> d que nos l101
L4           1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN
L5           QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25
322-68-3DP"
L6           QUE ABB=ON PLU=ON DEFREES, S?/AU
L7           QUE ABB=ON PLU=ON DE FREES, S?/AU
L8           QUE ABB=ON PLU=ON WANG, Z?/AU
L9           QUE ABB=ON PLU=ON NEOSE/CS, SO, PA
L11          QUE ABB=ON PLU=ON AB
L12          QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES
))
L13          QUE ABB=ON PLU=ON TOXIN
L16          QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?
```

L17           QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
 OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18           QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
 LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
 ?)  
 L19           QUE ABB=ON PLU=ON PEG  
 L20           QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?  
 POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)) (ETHYLENEOXID?  
 OR ETHYLENEGLYCOL?) OR (POLYETHYLENE(W)) (OXID? OR GLYCOL?  
 )) OR (?POLYETHYLEN?(1W)) (OXID? OR GLYCOL?)) OR (POLY(1T))  
 (ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
 L22           QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)) (ETHANEDIYL OR (ETHANE(W)DIYL)))  
 L33           STR  
 L35        120 SEA FILE=REGISTRY SSS FUL L33  
 L89           QUE ABB=ON PLU=ON ANTIBODIES+PFT,OLD,NEW,NT/CT  
 L90        652 SEA FILE=MEDLINE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR  
 L17)) (15A)L13  
 L91           QUE ABB=ON PLU=ON "TOXINS, BIOLOGICAL"+PFT,OLD,NEW,NT/  
 CT  
 L92        18 SEA FILE=MEDLINE ABB=ON PLU=ON L4  
 L93           QUE ABB=ON PLU=ON "POLYETHYLENE GLYCOLS"+PFT,OLD,NEW,N  
 T/CT  
 L94           0 SEA FILE=MEDLINE ABB=ON PLU=ON L35  
 L95           4 SEA FILE=MEDLINE ABB=ON PLU=ON L90 AND ((L92 OR L93) OR L5  
 OR (L19 OR L20 OR L21 OR L22))  
 L96        261 SEA FILE=MEDLINE ABB=ON PLU=ON L90 AND L89 AND L91  
 L97           0 SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND ((L92 OR L93 OR L94 OR  
 (L18 OR L19 OR L20 OR L21 OR L22))  
 QUE ABB=ON PLU=ON POLYMERS+PFT,OLD,NEW,NT/CT  
 L99           5 SEA FILE=MEDLINE ABB=ON PLU=ON L96 AND L98  
 L100        9 SEA FILE=MEDLINE ABB=ON PLU=ON L95 OR L97 OR L99  
 L101        0 SEA FILE=MEDLINE ABB=ON PLU=ON L100 AND ((L6 OR L7 OR L8 OR  
 L9))  
  
 => d que nos l119  
 L4        1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN  
 L5           QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25  
 322-68-3DP"  
 L6           QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7           QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8           QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9           QUE ABB=ON PLU=ON NEOSE/CS,SO,PA  
 L11        QUE ABB=ON PLU=ON AB  
 L12        QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)) (BODY OR BODIES  
 ))  
 L13        QUE ABB=ON PLU=ON TOXIN  
 L14        QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L15        QUE ABB=ON PLU=ON AMPLIF?  
 L16        QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17        QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
 OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18        QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY  
 LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN  
 ?)  
 L19        QUE ABB=ON PLU=ON PEG  
 L20        QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?

POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID?  
 OR ETHYLENEGLYCOL?)) OR (POLY(ETHYLENE(W) (OXID? OR GLYCOL?  
 )) OR (?POLYETHYLEN?(1T) (OXID? OR GLYCOL?)) OR (POLY(1T)  
 (ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21 QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
 L22 QUE ABB=ON PLU=ON POLY(1W) (OXY(4W) (ETHANEDIYL OR (ETHANE(W)DIYL)))  
 L23 QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPTID?  
 OR DIPEPTID? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPEPTID?  
 OR HEXAPEPTID?  
 L24 QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACCHARID?  
 OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS?  
 L33 STR  
 L35 120 SEA FILE=REGISTRY SSS FUL L33  
 L104 QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT  
 L105 QUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT  
 L106 575 SEA FILE=EMBASE ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR  
 L17)) (15A)L13  
 L107 0 SEA FILE=EMBASE ABB=ON PLU=ON L35  
 L108 15267 SEA FILE=EMBASE ABB=ON PLU=ON L4  
 L109 QUE ABB=ON PLU=ON MACROGOL+PFT,OLD,NEW,NT/CT  
 L110 0 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L107  
 L111 3 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND ((L108 OR L109) OR  
 (L108 OR L19 OR L20 OR L21 OR L22) OR L5)  
 L112 308 SEA FILE=EMBASE ABB=ON PLU=ON L106 AND L104 AND L105  
 L114 QUE ABB=ON PLU=ON CONJUGATE+FPT,OLD,NEW,NT/CT  
 L115 8 SEA FILE=EMBASE ABB=ON PLU=ON L112 AND L114  
 L116 11 SEA FILE=EMBASE ABB=ON PLU=ON (L110 OR L111) OR L115  
 L117 11 SEA FILE=EMBASE ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR  
 L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR  
 L23 OR L24)  
 L118 11 SEA FILE=EMBASE ABB=ON PLU=ON (L116 OR L117)  
 L119 0 SEA FILE=EMBASE ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR  
 L9)

=> d his l130

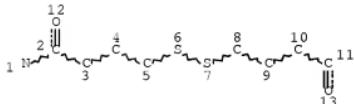
(FILE 'BIOSIS, CABA, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30  
 APR 2008)

L130 1 S L129 AND L6-L9

=> d que l130

L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25322-68-3/RN  
 L5 QUE ABB=ON PLU=ON "25322-68-3" OR "25322-68-3D" OR "25  
 322-68-3DP"  
 L6 QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7 QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8 QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9 QUE ABB=ON PLU=ON NEOSE/CS,SO,PA  
 L11 QUE ABB=ON PLU=ON AB  
 L12 QUE ABB=ON PLU=ON ANTBOD? OR (ANTI(1W) (BODY OR BODIES  
 ))  
 L13 QUE ABB=ON PLU=ON TOXIN  
 L16 QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17 QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
 OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18 QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKY

LEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?)  
 L19 QUE ABB=ON PLU=ON PEG  
 L20 QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?)) OR (?POLYETHYLEN?(1W)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21 QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
 L22 QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHANE(W)DIYL)))  
 L33 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 13

## STEREO ATTRIBUTES: NONE

L35 120 SEA FILE=REGISTRY SSS FUL L33  
 L122 1348 SEA ((L11 OR L12) (5A) (L16 OR L17)) (15A) L13  
 L123 1 SEA L35  
 L124 0 SEA L122 AND L123  
 L125 18194 SEA L4  
 L126 10 SEA L122 AND (L125 OR L5 OR (L18 OR L19 OR L20 OR L21 OR L22))  
 L127 393 SEA L122 AND (L11/IT, TI, CC, CT, ST, STP OR L12/IT, TI, CC, CT, ST, STP)  
       AND L13/IT, TI, CC, CT, ST, STP AND (L16/IT, TI, CC, CT, ST, STP OR  
       L17/IT, TI, CC, CT, ST, STP)  
 L128 171 SEA L127 AND L16/IT, TI, CC, CT, ST, STP  
 L129 181 SEA L124 OR L126 OR L128  
 L130 1 SEA L129 AND (L6 OR L7 OR L8 OR L9)

=> d his l144

(FILE 'PASCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB,  
 SCISEARCH, CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008)  
 L144 0 S L143 AND L6-L9

=> d que l144

L6 QUE ABB=ON PLU=ON DEFREES, S?/AU  
 L7 QUE ABB=ON PLU=ON DE FREES, S?/AU  
 L8 QUE ABB=ON PLU=ON WANG, Z?/AU  
 L9 QUE ABB=ON PLU=ON NEOSE/CS, SO, PA  
 L11 QUE ABB=ON PLU=ON AB

L12           QUE ABB=ON PLU=ON ANTIBOD? OR (ANTI(1W)(BODY OR BODIES ))  
 L13           QUE ABB=ON PLU=ON TOXIN  
 L14           QUE ABB=ON PLU=ON ?GLYCOSYL?  
 L16           QUE ABB=ON PLU=ON CONJUG? OR BIOCONJUG?  
 L17           QUE ABB=ON PLU=ON ATTACH? OR TETHER? OR BIND? OR LINK?  
               OR BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?  
 L18           QUE ABB=ON PLU=ON ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKYLEN?) OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?)  
 L19           QUE ABB=ON PLU=ON PEG  
 L20           QUE ABB=ON PLU=ON ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR ?POLYETHYLENEOXID? OR MACROGOL OR (POLY(W)(ETHYLENEOXID? OR ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W)(OXID? OR GLYCOL?)) OR (?POLYETHYLEN?(1T)(OXID? OR GLYCOL?)) OR (POLY(1T)(ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
 L21           QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR (POLY(1T)OXY(1T)ETHANEDIYL)  
 L22           QUE ABB=ON PLU=ON POLY(1W)(OXY(4W)(ETHANEDIYL OR (ETHANE(W)DIYL)))  
 L24           QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACC HARID? OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS?  
 L137          1710 SEA ((L11 OR L12) (5A) (L16 OR L17))(15A) L13  
 L138          28 SEA L137 AND (L18 OR L19 OR L20 OR L21 OR L22)  
 L139          67 SEA L137 AND (DISULPH? OR DISULPH? OR ((SULFUR OR SULPHUR)(2W)(SULFUR OR SULPHUR)) OR (S(1W) S))  
 L140          81 SEA L137 AND (L14 OR L24)  
 L141          0 SEA L138 AND L139  
 L142          4 SEA L138 AND L140  
 L143          28 SEA L138 OR L141 OR L142  
 L144          0 SEA L143 AND (L6 OR L7 OR L8 OR L9)

=> dup rem 151 162 186 1101 1119 1130 1144

L101 HAS NO ANSWERS

L119 HAS NO ANSWERS

L144 HAS NO ANSWERS

FILE 'HCAPLUS' ENTERED AT 10:35:54 ON 30 APR 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'USPATFULL' ENTERED AT 10:35:54 ON 30 APR 2008

CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 10:35:54 ON 30 APR 2008

COPYRIGHT (C) 2008 THE THOMSON CORPORATION

FILE 'BIOSIS' ENTERED AT 10:35:54 ON 30 APR 2008

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PROCESSING COMPLETED FOR L51

PROCESSING COMPLETED FOR L62

PROCESSING COMPLETED FOR L86

PROCESSING COMPLETED FOR L101

PROCESSING COMPLETED FOR L119

PROCESSING COMPLETED FOR L130

PROCESSING COMPLETED FOR L144

L148          3 DUP REM L51 L62 L86 L101 L119 L130 L144 (1 DUPLICATE REMOVED)  
               ANSWER '1' FROM FILE HCAPLUS

10/565,331

ANSWER '2' FROM FILE USPATFULL

ANSWER '3' FROM FILE BIOSIS

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 10:36:08 ON 30 APR 2008

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Apr 25, 2008 (20080425/UP).

=&gt; d ibib ed abs hitind hitstr

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, BIOSIS' - CONTINUE? (Y)/N:y

L148 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005121065 HCAPLUS Full-text

DOCUMENT NUMBER: 142:204915

TITLE: Antibody-toxin conjugates

INVENTOR(S): Defreess, Shawn; Wang, Zhi-Guang

PATENT ASSIGNEE(S): Neose Technologies, Inc., USA

SOURCE: PCT Int. Appl., 126 pp.

CODEN: PIXKD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012484	A2	20050210	WO 2004-US24042	20040726
WO 2005012484	A3	20070524		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, Hu, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA				
US 20070059275	A1	20070315	US 2006-565331	20060911 <-
PRIORITY APPN. INFO.:			US 2003-490168P	P 20030725
			US 2003-499448P	P 20030902
			WO 2004-US24042	W 20040726

ED Entered STN: 11 Feb 2005

AB In response to the need for improved site-specific delivery of toxins to the loci of disease, the present invention provides antibodies that are modified with toxins. The invention provides a unique class of conjugates in which the toxin is attached to the antibody through a glycosyl linking group, e.g., an intact glycosyl linking group, which is attached to the peptide (or to an acceptor moiety attached to the peptide, e.g. a spacer or amplifier) utilizing an enzymically-mediated coupling reaction. Thus, in a first aspect, the present invention provides a peptide conjugate in which the sugar-toxin construct (modified sugar) is attached to a peptide. For example, the invention provides a peptide conjugate having the formula: Ab-G-L-T wherein Ab is an antibody, or other targeting moiety; G is a glycosyl linking group, e.g., an intact glycosyl linking group, covalently joining Ab to L; L is a bond or a spacer moiety covalently joining G to T; and T is a toxin, or other therapeutic agent. In a second aspect, the invention provides a compound having the formula: S-L-T wherein S is a nucleotide sugar; L is a bond or a spacer moiety covalently joining S to T; and T is a toxin moiety.

IC ICM C12N

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 15

ST antibody toxin sugar conjugate

drug delivery system cancer  
 IT Antibodies and Immunoglobulins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates with toxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT Toxins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cytotoxins; conjugates with sugars and antibodies; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT Drug delivery systems  
(immunotoxins; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT Carbohydrates, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(nucleotide sugar-toxin conjugates; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

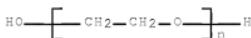
IT Antitumor agents  
 Neoplasm  
(therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT Polyoxalkylenes, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT 25322-68-3, PEG  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(linker; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

IT 25322-68-3, PEG  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(linker; therapeutic antibody-toxin conjugates involving a glycosyl linking group)

RN 25322-68-3 HCPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



=> d ibib ab hitstr 2  
 YOU HAVE REQUESTED DATA FROM FILE 'HCPLUS, USPATFULL, BIOSIS' - CONTINUE? (Y/N:y

L148 ANSWER 2 OF 3 USPATFULL on STN  
 ACCESSION NUMBER: 2007:68032 USPATFULL Full-text  
 TITLE: Antibody toxin conjugates

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES  
Wang, Zhi-Guang, Dresher, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007059275	A1	20070315
APPLICATION INFO.:	US 2004-565331	A1	20040726 (10)
	WO 2004-US24042		20040726
			20060911 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-490168P	20030725 (60)
	US 2003-499448P	20030902 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP (SF), 2 PALO ALTO SQUARE,  
3000 El Camino Real, Suite 700, PALO ALTO, CA, 94306,  
US

NUMBER OF CLAIMS: 25  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 35 Drawing Page(s)  
LINE COUNT: 3536

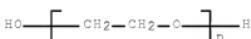
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides conjugates formed between toxins and sugars and toxins and peptides, such as antibodies. In an exemplary embodiment, a toxin-sugar construct is conjugated to an antibody through an intact glycosyl linking group.

IT 25322-68-3, PEG  
(linker; therapeutic antibody-toxin  
conjugates involving a glycosyl linking group)

RN 25322-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -hydro- $\omega$ -hydroxy- (CA INDEX NAME)



=> d ibib ed ab ind 3

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, BIOSIS' - CONTINUE? (Y)/N:y

L148 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN  
ACCESSION NUMBER: 2002:185708 BIOSIS Full-text  
DOCUMENT NUMBER: PREV200200185708  
TITLE: Improved binding of a bivalent single-chain immunotoxin results in increased efficacy for in vivo T-cell depletion.  
AUTHOR(S): Thompson, Jerry; Stavrou, Scott; Weetall, Marla; Hexham, J. Mark; Digan, Mary Ellen; Wang, Zhuri; Woo, Jung Hee; Yu, Yongjun; Mathias, Askale; Liu, Yuan Yi; Ma, Shenglin; Gordienko, Irina; Lake, Philip; Neville, David

CORPORATE SOURCE: M., Jr. [Reprint author]  
 Section on Biophysical Chemistry, Laboratory of Molecular Biology, National Institute of Mental Health, Bethesda, MD, 28092-4034, USA  
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SOURCE: Protein Engineering, (December, 2001) Vol. 14, No. 12, pp. 1035-1041. print.  
 CODEN: PRENE9. ISSN: 0269-2139.

DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 6 Mar 2002  
 Last Updated on STN: 6 Mar 2002

ED Entered STN: 6 Mar 2002  
 Last Updated on STN: 6 Mar 2002

AB Anti-CD3 immunotoxins exhibit considerable promise for the induction of transplantation tolerance in pre-clinical large animal models. Recently an anti-human anti-CD3epsilon single-chain immunotoxin based on truncated diphtheria toxin has been described that can be expressed in CHO cells that have been mutated to diphtheria toxin resistance. After the two toxin glycosylation sites were removed, the bioactivity of the expressed immunotoxin was nearly equal to that of the chemically conjugated immunotoxin. This immunotoxin, A-dmDT390-sFv, contains diphtheria toxin to residue 390 at the N-terminus followed by VL and VH domains of antibody UCHT1 linked by a (G4S)3 spacer (sFv). Surprisingly, we now report that this immunotoxin is severely compromised in its binding affinity toward CD3+ cells as compared with the intact parental UCHT1 antibody, the UCHT1 Fab fragment or the engineered UCHT1 sFv domain alone. Binding was increased 7-fold by adding an additional identical sFv domain to the immunotoxin generating a divalent construct, A-dmDT390-bisFv (G4S). In vitro potency increased 10-fold over the chemically conjugated immunotoxin, UCHT1-CRM9 and the monovalent A-dmDT390-sFv. The in vivo potency of the genetically engineered immunotoxins was assayed in the transgenic heterozygote mouse, tgepsilon 600, in which the T-cells express human CD3epsilon as well as murine CD3epsilon. T-cell depletion in the spleen and lymph node observed with the divalent construct was increased 9- and 34-fold, respectively, compared with the monovalent construct. The additional sFv domain appears partially to compensate for steric hindrance of immunotoxin binding due to the large N-terminal toxin domain.

CC Cytology - Animal 02506  
 Biochemistry studies - General 10060  
 Blood - Blood and lymph studies 15002  
 Blood - Blood cell studies 15004  
 Toxicology - General and methods 22501  
 Immunology - General and methods 34502

IT Major Concepts  
 Biochemistry and Molecular Biophysics; Immune System (Chemical Coordination and Homeostasis); Toxicology

IT Parts, Structures, & Systems of Organisms  
 CD3-positive cell: blood and lymphatics, immune system; T cell: blood and lymphatics, immune system, in vivo depletion; lymph node: blood and lymphatics, immune system; spleen: blood and lymphatics, immune system

IT Chemicals & Biochemicals  
 (G-4-S)-3 spacer; A-dmDT390-sFv: monovalent; UCHT1: antibody; UCHT1-CRM9: conjugated-immunotoxin; anti-human anti-CD3-epsilon single-chain immunotoxin; immunotoxin: bivalent, single-chain; toxin glycosylation site

IT Miscellaneous Descriptors  
 diphtheria toxin resistance

ORGN Classifier  
 Cricetidae 86310  
 Super Taxa

10/565,331

Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
CHO cell line  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,  
Rodents, Vertebrates  
ORGN Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
mouse: heterozygote, tg-epsilon 600, transgenic  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,  
Rodents, Vertebrates

=> file stnguide  
FILE 'STNGUIDE' ENTERED AT 10:37:03 ON 30 APR 2008  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Apr 25, 2008 (20080425/UP).

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(FILE 'HOME' ENTERED AT 08:34:49 ON 30 APR 2008)
FILE 'STNGUIDE' ENTERED AT 08:34:52 ON 30 APR 2008
FILE 'ZCPLUS' ENTERED AT 08:35:17 ON 30 APR 2008
    E US2006-565331/APPS

FILE 'HCAPLUS' ENTERED AT 08:35:34 ON 30 APR 2008
L1      1 SEA ABB=ON   PLU=ON  US2006-565331/APPS
        D SCAN

FILE 'WPIX' ENTERED AT 08:35:53 ON 30 APR 2008
L2      2 SEA ABB=ON   PLU=ON  US2006-565331/APPS
        D TRI 1-2
L3      1 SEA ABB=ON   PLU=ON  L2 NOT PRINTER/TI

FILE 'STNGUIDE' ENTERED AT 08:36:49 ON 30 APR 2008
    D QUE L1

FILE 'HCAPLUS' ENTERED AT 08:37:07 ON 30 APR 2008
    D IBIB ED ABS IND L1

FILE 'STNGUIDE' ENTERED AT 08:37:07 ON 30 APR 2008
    D QUE L3

FILE 'WPIX' ENTERED AT 08:37:31 ON 30 APR 2008
    D IALL CODE L3

FILE 'STNGUIDE' ENTERED AT 08:37:32 ON 30 APR 2008

FILE 'REGISTRY' ENTERED AT 08:43:07 ON 30 APR 2008
L4      1 SEA ABB=ON   PLU=ON  25322-68-3/RN
        D SCAN

FILE 'ZCPLUS' ENTERED AT 08:43:30 ON 30 APR 2008
L5      QUE ABB=ON   PLU=ON  "25322-68-3" OR "25322-68-3D" OR "25322-68-
        3DP"
L6      QUE ABB=ON   PLU=ON  DEFREES, S?/AU
L7      QUE ABB=ON   PLU=ON  DE FREES, S?/AU
L8      QUE ABB=ON   PLU=ON  WANG, Z?/AU
L9      QUE ABB=ON   PLU=ON  NEOSE/CS,SO,PA
L10     QUE ABB=ON   PLU=ON  AY<2004 OR PY<2004 OR PRY<2004 OR MY<2004
        OR REVIEW/DT
L11     QUE ABB=ON   PLU=ON  AB
L12     QUE ABB=ON   PLU=ON  ANTIBOD? OR (ANTI(1W) (BODY OR BODIES))
L13     QUE ABB=ON   PLU=ON  TOXIN
L14     QUE ABB=ON   PLU=ON  ?GLYCOSYL?
L15     QUE ABB=ON   PLU=ON  AMPLIF?
L16     QUE ABB=ON   PLU=ON  CONJUG? OR BIOCONJUG?
L17     QUE ABB=ON   PLU=ON  ATTACH? OR TETHER? OR BIND? OR LINK? OR
        BOND? OR CONJUGAT? OR COMPLEX? OR COORDINATE?
L18     QUE ABB=ON   PLU=ON  ?POLYOXYALKYLEN? OR (POLY(1W)OXYALKYLEN?)
        OR (POLYOXY(1W)ALKYLEN?) OR (POLY(1W)OXY(1W)ALKYLEN?)
L19     QUE ABB=ON   PLU=ON  PEG
L20     QUE ABB=ON   PLU=ON  ?PEGYL? OR ?POLYETHYLENEGLYCOL? OR
        ?POLYETHYLENEOXID? OR MACROGOL OR (POLY(W) (ETHYLENEOXID? OR
        ETHYLENEGLYCOL?)) OR (POLYETHYLENE(W) (OXID? OR GLYCOL?)) OR
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## 10/565,331

(?POLYETHYLEN? (1T) (OXID? OR GLYCOL?)) OR (POLY (1T) (ETHYLENEOXID? OR ETHYLENEGLYCOL?))  
L21 QUE ABB=ON PLU=ON (POLY(1T)OXY(1T)ETHANE(1T)DIYL) OR  
(POLY(1T)OXY(1T)ETHANEDIYL)  
L22 QUE ABB=ON PLU=ON POLY(1W) (OXY(4W) (ETHANEDIYL OR (ETHANE(W)DI  
YL)))  
L23 QUE ABB=ON PLU=ON ?PEPTID? OR POLYPEPTID? OR OLIGOPEPTID? OR  
Dipeptid? OR TRIPEPTID? OR TETRAPEPTID? OR PENTAPEPTID? OR  
HEXAPEPTID?  
L24 QUE ABB=ON PLU=ON SUGAR OR MONOSACCHARID? OR OLIGOSACCHARID?  
OR SACCHARID? OR FURANOS? OR HEXOS? OR PYRANOS? OR PENTOS?  
L25 QUE ABB=ON PLU=ON "ANTIBODIES AND IMMUNOGLOBULINS"+PFT,OLD,NE  
W,NT/CT  
L26 QUE ABB=ON PLU=ON TOXINS+PFT,OLD,NEW,NT/CT  
L27 QUE ABB=ON PLU=ON POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT  
L28 QUE ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,OLD,NEW,NT/CT  
L29 QUE ABB=ON PLU=ON A61K0039-395/IPC  
L30 QUE ABB=ON PLU=ON A61K0039-44/IPC  
L31 QUE ABB=ON PLU=ON C07K0016-46/IPC  
L32 QUE ABB=ON PLU=ON C07K0017-08/IPC

FILE 'LREGISTRY' ENTERED AT 08:59:54 ON 30 APR 2008  
L33 STR

FILE 'REGISTRY' ENTERED AT 09:01:35 ON 30 APR 2008  
L34 10 SEA SSS SAM L33

FILE 'STNGUIDE' ENTERED AT 09:02:24 ON 30 APR 2008  
D QUE STAT

FILE 'REGISTRY' ENTERED AT 09:04:35 ON 30 APR 2008  
L35 120 SEA SSS FUL L33  
SAVE TEMP L35 HUY331PSET1/A

FILE 'STNGUIDE' ENTERED AT 09:05:03 ON 30 APR 2008

FILE 'HCAPLUS' ENTERED AT 09:07:37 ON 30 APR 2008  
L36 501 SEA ABB=ON PLU=ON L25 ((L16 OR L17)(L)L13)  
L37 0 SEA ABB=ON PLU=ON L25 ((L)((L16 OR L17)(L)L13)(L)(L18 OR L19  
OR L20 OR L21 OR L22))  
L38 1547 SEA ABB=ON PLU=ON L26 ((L11 OR L12)(L)(L16 OR L17))  
L39 1800 SEA ABB=ON PLU=ON L36 OR L38  
L40 106288 SEA ABB=ON PLU=ON L4  
L41 48 SEA ABB=ON PLU=ON L39 AND (L40 OR L5 OR (L19 OR L20 OR L21  
OR L22))  
L42 67 SEA ABB=ON PLU=ON L35  
L43 0 SEA ABB=ON PLU=ON L42 ((L)((L16 OR L17)(L)L13))  
L44 9 SEA ABB=ON PLU=ON L42 ((L)(L16 OR L17))  
L45 3 SEA ABB=ON PLU=ON L44 AND ((L11 OR L12) OR L25 OR (L29 OR  
L30 OR L31 OR L32))  
D SCAN TI HIT  
L46 57 SEA ABB=ON PLU=ON L41 OR (L43 OR L44 OR L45)  
L47 57 SEA ABB=ON PLU=ON L46 AND (L11 OR L12 OR L13 OR L14 OR L15  
OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24  
OR L25 OR L26 OR L27 OR L28)  
L48 57 SEA ABB=ON PLU=ON (L46 OR L47)  
L49 1 SEA ABB=ON PLU=ON L48 AND (L6 OR L7 OR L8 OR L9)  
L50 1 SEA ABB=ON PLU=ON L1 AND L49  
L51 1 SEA ABB=ON PLU=ON (L49 OR L50)  
L52 56 SEA ABB=ON PLU=ON L48 NOT L51

10/565,331

L53           35 SEA ABB=ON PLU=ON L52 AND L10  
SAVE TEMP L53 HUY331HCAB/A

FILE 'STNGUIDE' ENTERED AT 09:16:05 ON 30 APR 2008

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 09:18:02 ON 30 APR 2008

L54           19 SEA ABB=ON PLU=ON L35  
L55           29534 SEA ABB=ON PLU=ON L4  
L56           549 SEA ABB=ON PLU=ON (L54 OR L55) AND (L29 OR L30 OR L31 OR  
L32)  
L57           0 SEA ABB=ON PLU=ON L56 AND L54  
L58           549 SEA ABB=ON PLU=ON (L56 OR L57)  
L59           425 SEA ABB=ON PLU=ON L58 AND (L11/IT, TI, CC, CT, ST, STP OR  
L12/IT, TI, CC, CT, ST, STP)  
L60           58 SEA ABB=ON PLU=ON L59 AND L13/IT, TI, CC, CT, ST, STP  
L61           37 SEA ABB=ON PLU=ON L60 AND L16/IT, TI, CC, CT, ST, STP  
L62           1 SEA ABB=ON PLU=ON L61 AND (L6 OR L7 OR L8 OR L9)  
L63           36 SEA ABB=ON PLU=ON L61 NOT L62  
L64           28 SEA ABB=ON PLU=ON L63 AND L10  
L65           21 SEA ABB=ON PLU=ON L64 AND (L14/IT, TI, CC, CT, ST, STP, BI, AB OR  
L24/IT, TI, CC, CT, ST, STP, BI, AB)  
L66           2 SEA ABB=ON PLU=ON L65 AND (L30 OR L32)  
D SCAN  
L67           9486 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(10A) L13  
L68           11 SEA ABB=ON PLU=ON L65 AND L67

FILE 'STNGUIDE' ENTERED AT 09:23:00 ON 30 APR 2008

FILE 'STNGUIDE' ENTERED AT 09:40:38 ON 30 APR 2008

FILE 'WPIX' ENTERED AT 09:40:53 ON 30 APR 2008

L69           1 SEA ABB=ON PLU=ON RA00C8/SDCN  
D TRI  
L70           QUE ABB=ON PLU=ON RA00C8/DCN OR 184587/DCR, DCRE, KW  
L71           QUE ABB=ON PLU=ON (R00351 OR P8004)/PLE  
L72           QUE ABB=ON PLU=ON "L8"/M0, M1, M2, M3, M4, M5, M6

FILE 'STNGUIDE' ENTERED AT 09:42:39 ON 30 APR 2008

FILE 'WPIX' ENTERED AT 09:43:16 ON 30 APR 2008

L73           QUE ABB=ON PLU=ON K224/M0, M1, M2, M3, M4, M5, M6  
L74           660 SEA ABB=ON PLU=ON L70 AND L71  
L75           214 SEA ABB=ON PLU=ON L74 AND L72  
L76           40 SEA ABB=ON PLU=ON L75 AND L73  
L77           12 SEA ABB=ON PLU=ON L76 AND (L29 OR L30 OR L31 OR L32)  
L78           0 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)L16-LL17/BIX, BIEX, ABEX, TT  
) (20A)L13  
L79           852 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(20A)L13  
L80           1471 SEA ABB=ON PLU=ON (((L11 OR L12) (5A)(L16 OR L17))(20A)L23) (L  
L13)  
L81           12 SEA ABB=ON PLU=ON L76 AND (L77 OR (L79 OR L80))  
L82           1 SEA ABB=ON PLU=ON L76 AND (L79 OR L80)  
L83           12 SEA ABB=ON PLU=ON (L81 OR L82)  
L84           12 SEA ABB=ON PLU=ON L83 AND (L11 OR L12 OR L13 OR L14 OR L15  
OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR  
L24)  
L85           12 SEA ABB=ON PLU=ON (L83 OR L84)  
L86           1 SEA ABB=ON PLU=ON L85 AND (L6 OR L7 OR L8 OR L9)  
L87           11 SEA ABB=ON PLU=ON L85 NOT L86  
L88           10 SEA ABB=ON PLU=ON L87 AND L10

D TRI 5-10  
 D KWIC 9-10

FILE 'STNGUIDE' ENTERED AT 09:50:41 ON 30 APR 2008

FILE 'MEDLINE' ENTERED AT 09:51:14 ON 30 APR 2008  
 E ANTIBODIES/CT  
 L89           QUE ABB=ON PLU=ON ANTIBODIES+PFT,OLD,NEW,NT/CT  
 E TOXINS/CT  
 L\*\*\* DEL     0 S (11-L12 (5A)L16-L17)(15A)L13  
 L90        652 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13  
 D TRI 1-3  
 D TRI 20-24  
 L91           QUE ABB=ON PLU=ON "TOXINS, BIOLOGICAL"+PFT,OLD,NEW,NT/CT  
 D HIS30  
 L92        18 SEA ABB=ON PLU=ON L4  
 E POLYETHYLENE GLYCOLS/CT  
 L93           QUE ABB=ON PLU=ON "POLYETHYLENE GLYCOLS"+PFT,OLD,NEW,NT/CT  
 L94        0 SEA ABB=ON PLU=ON L35  
 L95        4 SEA ABB=ON PLU=ON L90 AND ((L92 OR L93) OR L5 OR (L19 OR L20  
 OR L21 OR L22))  
 L96        261 SEA ABB=ON PLU=ON L90 AND L89 AND L91  
 L97        0 SEA ABB=ON PLU=ON L96 AND (L92 OR L93 OR L94 OR (L18 OR L19  
 OR L20 OR L21 OR L22))  
 E BIOCONJUGATE/CT  
 E POLYMERS/CT  
 L98           QUE ABB=ON PLU=ON POLYMERS+PFT,OLD,NEW,NT/CT  
 L99        5 SEA ABB=ON PLU=ON L96 AND L98  
 L100       9 SEA ABB=ON PLU=ON L95 OR L97 OR L99  
 D QUE  
 L101       0 SEA ABB=ON PLU=ON L100 AND (L6 OR L7 OR L8 OR L9)  
 L102       9 SEA ABB=ON PLU=ON L100 NOT L101  
 L103       7 SEA ABB=ON PLU=ON L102 AND L10  
 D TRI 1-7

FILE 'STNGUIDE' ENTERED AT 09:59:20 ON 30 APR 2008

FILE 'EMBASE' ENTERED AT 09:59:25 ON 30 APR 2008  
 E ANTIBODIES/CT  
 E E123+ALL  
 L104           QUE ABB=ON PLU=ON ANTIBODY+PFT,OLD,NEW,NT/CT  
 E TOXIN/CT  
 L105           QUE ABB=ON PLU=ON TOXIN+PFT,OLD,NEW,NT/CT  
 L106        575 SEA ABB=ON PLU=ON ((L11 OR L12) (5A)(L16 OR L17))(15A)L13  
 L107        0 SEA ABB=ON PLU=ON L35  
 L108       15267 SEA ABB=ON PLU=ON L4  
 L109           QUE ABB=ON PLU=ON MACROGOL+PFT,OLD,NEW,NT/CT  
 L110        0 SEA ABB=ON PLU=ON L106 AND L107  
 L111        3 SEA ABB=ON PLU=ON L106 AND ((L108 OR L109) OR (L18 OR L19 OR  
 L20 OR L21 OR L22) OR L5)  
 L112        308 SEA ABB=ON PLU=ON L106 AND L104 AND L105  
 L113       130 SEA ABB=ON PLU=ON L112 AND ((CONJUG?/IT, TI, CC, CT, ST, STP OR  
 BIOCONJUG?/IT, TI, CC, CT, ST, STP) OR (ATTACH?/IT, TI, CC, CT, ST, STP  
 OR TETHER?/IT, TI, CC, CT, ST, STP OR BIND?/IT, TI, CC, CT, ST, STP OR  
 LINK?/IT, TI, CC, CT, ST, STP OR BOND?/IT, TI, CC, CT, ST, STP OR  
 CONJUGAT?/IT, TI, CC, CT, ST, STP OR COMPLEX?/IT, TI, CC, CT, ST, STP OR  
 COORDINATE?/IT, TI, CC, CT, ST, STP))  
 D TRI 1-5  
 E CONJUGATE  
 E CONJUGATE/CT

E E161+ALL  
L114       QUE ABB=ON PLU=ON CONJUGATE+PFT,OLD,NEW,NT/CT  
L115       8 SEA ABB=ON PLU=ON L112 AND L114  
L116       11 SEA ABB=ON PLU=ON (L110 OR L111) OR L115  
L117       11 SEA ABB=ON PLU=ON L116 AND (L11 OR L12 OR L13 OR L14 OR L15  
            OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR  
            L24)  
L118       11 SEA ABB=ON PLU=ON (L116 OR L117)  
L119       0 SEA ABB=ON PLU=ON L118 AND (L6 OR L7 OR L8 OR L9)  
L120       11 SEA ABB=ON PLU=ON L118 NOT L119  
L121       10 SEA ABB=ON PLU=ON L120 AND L10  
D TRI 9-10

FILE 'STNGUIDE' ENTERED AT 10:04:31 ON 30 APR 2008

FILE 'BIOSIS, CABAB, BIOTECHNO, DRUGU, VETU' ENTERED AT 10:05:22 ON 30 APR 2008

L122       1348 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(15A) L13  
L123       1 SEA ABB=ON PLU=ON L35  
L124       0 SEA ABB=ON PLU=ON L122 AND L123  
L125       18194 SEA ABB=ON PLU=ON L4  
L126       10 SEA ABB=ON PLU=ON L122 AND (L125 OR L5 OR (L18 OR L19 OR L20  
            OR L21 OR L22))  
L127       393 SEA ABB=ON PLU=ON L122 AND (L11/IT, TI, CC, CT, ST, STP OR  
            L12/IT, TI, CC, CT, ST, STP) AND L13/IT, TI, CC, CT, ST, STP AND  
            (L16/IT, TI, CC, CT, ST, STP OR L17/IT, TI, CC, CT, ST, STP)  
L128       171 SEA ABB=ON PLU=ON L127 AND L16/IT, TI, CC, CT, ST, STP  
L129       181 SEA ABB=ON PLU=ON L124 OR L126 OR L128  
L130       1 SEA ABB=ON PLU=ON L129 AND (L6 OR L7 OR L8 OR L9)  
L131       180 SEA ABB=ON PLU=ON L129 NOT L130  
L132       161 SEA ABB=ON PLU=ON L131 AND L10  
L133       4 SEA ABB=ON PLU=ON L132 AND (L14 OR L24)  
D SCAN

FILE 'STNGUIDE' ENTERED AT 10:10:08 ON 30 APR 2008

FILE 'JAPIO' ENTERED AT 10:10:38 ON 30 APR 2008

L134       13 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(15A)L13  
L135       9 SEA ABB=ON PLU=ON L134 AND (L29 OR L30 OR L31 OR L32)  
L136       1 SEA ABB=ON PLU=ON L135 AND (L18 OR L19 OR L20 OR L21 OR L22)

D SCAN  
D BIB KWIC

FILE 'STNGUIDE' ENTERED AT 10:12:21 ON 30 APR 2008

FILE 'PASCAL, CEABA-VTB, BIOENG, BIOTECHDS, LIFESCI, DRUGB, VETB,  
SCISEARCH, CONFSCI, DISSABS' ENTERED AT 10:12:45 ON 30 APR 2008  
L137       1710 SEA ABB=ON PLU=ON ((L11 OR L12) (5A) (L16 OR L17))(15A) L13  
L138       28 SEA ABB=ON PLU=ON L137 AND (L18 OR L19 OR L20 OR L21 OR L22)  
  
L139       67 SEA ABB=ON PLU=ON L137 AND (DISULF? OR DISULPH? OR ((SULFUR  
            OR SULPHUR)(2W)(SULFUR OR SULPHUR)) OR (S(1W) S))  
L140       81 SEA ABB=ON PLU=ON L137 AND (L14 OR L24)  
L141       0 SEA ABB=ON PLU=ON L138 AND L139  
L142       4 SEA ABB=ON PLU=ON L138 AND L140  
L143       28 SEA ABB=ON PLU=ON L138 OR L141 OR L142  
L144       0 SEA ABB=ON PLU=ON L143 AND (L6 OR L7 OR L8 OR L9)  
L145       28 SEA ABB=ON PLU=ON L143 NOT L144  
L146       15 SEA ABB=ON PLU=ON L145 AND L10

10/565,331

FILE 'STNGUIDE' ENTERED AT 10:22:46 ON 30 APR 2008  
D QUE L4

FILE 'REGISTRY' ENTERED AT 10:23:27 ON 30 APR 2008  
D IDE L4

FILE 'STNGUIDE' ENTERED AT 10:23:29 ON 30 APR 2008  
D QUE STAT L35  
D QUE NOS L53  
D QUE NOS L68  
D QUE L88  
D QUE NOS L103  
D QUE NOS L121  
D QUE NOS L133  
D QUE L136  
D QUE L146

FILE 'HCAPLUS, USPATFULL, USPAT2, WPIX, MEDLINE, EMBASE, BIOSIS,  
BIOTECHNO, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:26:03 ON 30  
APR 2008

L147 84 DUP REM L53 L68 L88 L103 L121 L133 L136 L146 (9 DUPLICATES RE  
ANSWERS '1-35' FROM FILE HCAPLUS  
ANSWERS '36-44' FROM FILE USPATFULL  
ANSWERS '45-54' FROM FILE WPIX  
ANSWERS '55-60' FROM FILE MEDLINE  
ANSWERS '61-67' FROM FILE EMBASE  
ANSWERS '68-69' FROM FILE BIOSIS  
ANSWER '70' FROM FILE JAPIO  
ANSWER '71' FROM FILE BIOENG  
ANSWERS '72-82' FROM FILE BIOTECHDS  
ANSWERS '83-84' FROM FILE SCISEARCH  
SAVE TEMP L147 HUY331MAIN/A

FILE 'STNGUIDE' ENTERED AT 10:26:22 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG,  
BIOTECHDS, SCISEARCH' ENTERED AT 10:27:00 ON 30 APR 2008  
D IBIB ED ABS HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 10:27:01 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG,  
BIOTECHDS, SCISEARCH' ENTERED AT 10:27:12 ON 30 APR 2008  
D IBIB ED ABS HITIND HITSTR 2-35

FILE 'STNGUIDE' ENTERED AT 10:27:49 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG,  
BIOTECHDS, SCISEARCH' ENTERED AT 10:31:41 ON 30 APR 2008  
D IBIB AB HITSTR 36-44

FILE 'STNGUIDE' ENTERED AT 10:31:50 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG,  
BIOTECHDS, SCISEARCH' ENTERED AT 10:32:18 ON 30 APR 2008  
D IALL ABEQ TECH ABEX FRAGHITSTR 45-54

FILE 'STNGUIDE' ENTERED AT 10:32:30 ON 30 APR 2008

10/565,331

FILE 'HCAPLUS, USPATFULL, WPIX, MEDLINE, EMBASE, BIOSIS, JAPIO, BIOENG, BIOTECHDS, SCISEARCH' ENTERED AT 10:34:02 ON 30 APR 2008  
D IBIB ED AB IND 55-84

FILE 'STNGUIDE' ENTERED AT 10:34:06 ON 30 APR 2008

D QUE NOS L51  
D QUE NOS L62  
D QUE L86  
D QUE NOS L101  
D QUE NOS L119  
D QUE L130  
D QUE L144

FILE 'HCAPLUS, USPATFULL, WPIX, BIOSIS' ENTERED AT 10:35:54 ON 30 APR 2008  
L148 3 DUP REM L51 L62 L86 L101 L119 L130 L144 (1 DUPLICATE REMOVED)  
ANSWER '1' FROM FILE HCAPLUS  
ANSWER '2' FROM FILE USPATFULL  
ANSWER '3' FROM FILE BIOSIS  
SAVE TEMP L148 HUY331INV/A

FILE 'STNGUIDE' ENTERED AT 10:36:08 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:36:30 ON 30 APR 2008  
D IBIB ED ABS HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 10:36:30 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:36:43 ON 30 APR 2008  
D IBIB AB HITSTR 2

FILE 'STNGUIDE' ENTERED AT 10:36:44 ON 30 APR 2008

FILE 'HCAPLUS, USPATFULL, BIOSIS' ENTERED AT 10:37:00 ON 30 APR 2008  
D IBIB ED AB IND 3

FILE 'STNGUIDE' ENTERED AT 10:37:00 ON 30 APR 2008

FILE 'STNGUIDE' ENTERED AT 10:37:03 ON 30 APR 2008

FILE HOME

FILE STNGUIDE  
FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Apr 25, 2008 (20080425/UP).

FILE ZCPLUS

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FILE COVERS 1907 - 30 Apr 2008 VOL 148 ISS 18  
FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)

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FILE COVERS 1907 - 30 Apr 2008 VOL 148 ISS 18

FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)

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FILE WPIX

FILE LAST UPDATED: 25 APR 2008 <20080425/UP>  
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200827 <200827/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> IPC Reform backfile reclassification has been loaded to the end of November 2007. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC, 20070601/UPIC, 20071001/UPIC and 20071130/UPIC. <<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,

PLEASE VISIT:

[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf)

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE

<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

EXPLORE DERWENT WORLD PATENTS INDEX IN STN ANAVIST, VERSION 2.0:

[http://www.stn-international.com/archive/presentations/DWPINaVist2\\_0710.p](http://www.stn-international.com/archive/presentations/DWPINaVist2_0710.p)

>>> XML document distribution format now available - See HELP XMLDOC <<

>>> ECLA Codes and Current US National Classifications have been added - see NEWS and HELP CHANGE <<

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<

>>> Updated PDF files in the following links:

[http://www.stn-international.de/stndatabases/details/ico\\_0803.zip](http://www.stn-international.de/stndatabases/details/ico_0803.zip)

[http://www.stn-international.de/stndatabases/details/epc\\_0803.zip](http://www.stn-international.de/stndatabases/details/epc_0803.zip)

Supplement of all changed ECLA items:

[>>> http://www.stn-international.de/stndatabases/details/ecla\\_0803s.zip <<](http://www.stn-international.de/stndatabases/details/ecla_0803s.zip)

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 APR 2008 HIGHEST RN 1018438-06-6  
DICTIONARY FILE UPDATES: 29 APR 2008 HIGHEST RN 1018438-06-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 22 Apr 2008 (20080422/PD)  
FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)  
HIGHEST GRANTED PATENT NUMBER: US7367063  
HIGHEST APPLICATION PUBLICATION NUMBER: US2008098499  
CA INDEXING IS CURRENT THROUGH 29 Apr 2008 (20080429/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 22 Apr 2008 (20080422/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2008  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2008

FILE USPATOLD

FILE COVERS U.S. PATENTS 1790-1975

Produced using data provided by Univentio.

This database was created using Optical Character Recognition (OCR) technology. For this reason, some characters may be missing or mistranslated. In order to improve searchability and retrieval, CA indexing information has been added to the Title, Inventor, and Patent Assignee fields where possible. Please see HELP CASDATA for more information on the availability of CAS indexing in this database.

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 29 Apr 2008 (20080429/PD)  
FILE LAST UPDATED: 29 Apr 2008 (20080429/ED)  
HIGHEST GRANTED PATENT NUMBER: US2008054177  
HIGHEST APPLICATION PUBLICATION NUMBER: US2008098458  
CA INDEXING IS CURRENT THROUGH 29 Apr 2008 (20080429/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 29 Apr 2008 (20080429/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2008  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2008

FILE MEDLINE

FILE LAST UPDATED: 29 Apr 2008 (20080429/UP). FILE COVERS 1949 TO DATE.

MEDLINE has been updated with the National Library of Medicine's revised 2008 MeSH terms. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE EMBASE

FILE COVERS 1974 TO 29 Apr 2008 (20080429/ED)

EMBASE was reloaded on March 30, 2008.

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Beginning January 2008, Elsevier will no longer provide EMTREE codes as part of the EMTREE thesaurus in EMBASE. Please update your current-awareness alerts (SDIs) if they contain EMTREE codes.

For further assistance, please contact your local helpdesk.

FILE BIOSIS

FILE COVERS 1926 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 23 April 2008 (20080423/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE CABA

FILE COVERS 1973 TO 4 Apr 2008 (20080404/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE BIOTECHNO

FILE LAST UPDATED: 7 JAN 2004 <20040107/UP>

FILE COVERS 1980 TO 2003.

THIS FILE IS A STATIC FILE WITH NO UPDATES

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN /CT AND BASIC INDEX <<<

FILE DRUGU

FILE LAST UPDATED: 28 APR 2008 <20080428/UP>

>>> DERVENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<  
>>> THESAURUS AVAILABLE IN /CT <<<

FILE VETU  
FILE LAST UPDATED: 02 JAN 2002 <20020102/UP>  
FILE COVERS 1983-2001

FILE JAPIO  
FILE LAST UPDATED: 24 APR 2008 <20080424/UP>  
FILE COVERS APRIL 1973 TO DECEMBER 27, 2007

>>> GRAPHIC IMAGES AVAILABLE <<<

FILE PASCAL  
FILE LAST UPDATED: 28 APR 2008 <20080428/UP>  
FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE  
IN THE BASIC INDEX (/BI) FIELD <<<

FILE CEABA-VTB  
FILE LAST UPDATED: 22 APR 2008 <20080422/UP>  
FILE COVERS 1966 TO DATE

>>> DECHEMA, the producer of CEABA-VTB is using a new classification  
scheme.  
The new classification schemes are available as a PDF file  
and may be downloaded free-of-charge from:  
<http://www.stn-international.de/news/cc-de.pdf>  
and  
<http://www.stn-international.de/news/cc-en.pdf> <<<

FILE BIOENG  
FILE LAST UPDATED: 3 APR 2008 <20080403/UP>  
FILE COVERS 1982 TO DATE

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN  
THE BASIC INDEX <<<

FILE BIOTECHDS  
FILE LAST UPDATED: 24 APR 2008 <20080424/UP>  
FILE COVERS 1982 TO DATE

>>> USE OF THIS FILE IS LIMITED TO BIOTECH SUBSCRIBERS <<<

FILE LIFESCI  
FILE COVERS 1978 TO 11 Mar 2008 (20080311/ED)

FILE DRUGB  
>>> FILE COVERS 1964 TO 1982 - CLOSED FILE <<<

FILE VETB  
FILE LAST UPDATED: 25 SEP 94 <940925/UP>  
FILE COVERS 1968-1982

FILE SCISEARCH

FILE COVERS 1974 TO 24 Apr 2008 (20080424/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONFSCI

FILE COVERS 1973 TO 18 Oct 2007 (20071018/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 24 APR 2008 (20080424/ED)

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